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1/96

# INSTALLATION INSTRUCTIONS

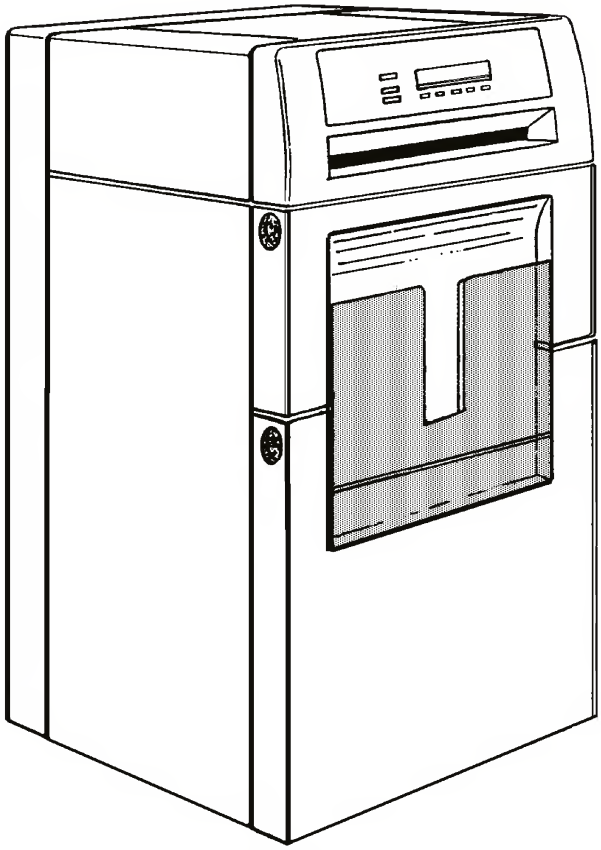
for the

## *KODAK X-OMAT* Multiloader 300

## *KODAK X-OMAT* Multiloader 300 Plus

and for the

## *KODAK XML 300* Darkroom Film Feeder



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**ESD**

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use care to prevent damage during all service procedures.

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# CHAPTER 1

# PACKING LIST

| | | |
|---|---|---|
| CONDUIT FITTING | 594782 | 1 |
| DEVELOPER FILTER | 943442 | 1 |
| EXTENSION EKU21/29 | 4540041 | 1 |
| FUSE CAP (UL/CSA) | 4532836 | 11 |
| FUSE HOLDER | 476332 | 3 |
| FUSE T 3.2A | 4533686 | 5 |
| FUSE T 4A | 4534026 | 1 |
| FUSE T 6.25A | 4534036 | 1 |
| FUSE T 1.6A | 4533676 | 3 |
| FUSE T 8A | 4534156 | 1 |
| GRADUATED CYLINDER | 479821 | 2 |
| GUARD SPLASH | 918947 | 1 |
| HOSE-CLAMP 11-20 | 246800 | 2 |
| HOSE-CLAMP 17-32 | 246803 | 4 |
| HOSE-CLAMP 21-38 | 246804 | 1 |
| HOW TO USE BOOKLET | | 1 |
| JUMPER | 4533256 | 2 |
| LOCKNUT | 852878 | 1 |
| NUT GMK21 | 4536031 | 2 |
| REFLECTIVE STICKER | 9194556 | 1 |
| STRAIN RELIEF STR21 | 4536021 | 1 |
| STRAIN RELIEF STR29 | 4540031 | 1 |
| STRAINER ASSEMBLY | 472261 | 2 |
| DRIP TRAY, RACK | 459432 | 1 |
| WASHER | 483051 | 2 |

## FOR XML 300 / XML 300 Plus INSTALLATIONS IN US AND CANADA ONLY:

1. Remove and discard all FUSES and FUSE CAPS from the POWER SUPPLY.

2. Insert the UL and CSA approved FUSES and FUSE CAPS from the INSTALLATION KIT.

**FOR XML 300 / XML 300 Plus INSTALLATIONS OUTSIDE US AND CANADA:**

1. Discard the additional FUSES and FUSE CAPS in the INSTALLATION KIT.

# SPECIAL TOOLS

**Note**

Check that all TOOLS are available before installation.

| | |
|---|---|
| AIR METER | TL 2431 |
| BLOW PIPE POSITIONER CASSETTE | TL 4830 |
| BLOW PIPE POSITIONER MAGAZINE | TL 4582 |
| CARPENTERS LEVEL | TL 1434 |
| CES SERVICE SOFTWARE<br>use always the latest version available | G9903843 |
| DATA CABLE | TL 4391 |
| DENTIST MIRROR | TL 2753 |
| ESD KIT | TL 3346 |
| EXTRACTION TOOL | TL 1580 |
| EXTRACTION TOOL | TL 1654 |
| GREASE | TL 2247 |
| IC CIRCUIT SURFACE MOUNT EXTRACTION TOOL | TL 4430 |
| INTERLOCK KEY | 9901918 |
| LAP TOP COMPUTER | has to be bought locally. |
| LAP TOP DATA CABLE | TL 4391 |
| LOGIC PEN | TL 3008 |
| METRIC ALLEN SET | TL 2764 |
| METRIC OPEN END WRENCH 5.5 mm | TL 1936 |
| METRIC OPEN END WRENCH SET | TL 2765 |
| METRIC SOCKET WRENCH SET | G9901934 |
| REPLENISHER CHECK TUBE | 592380 |
| SLING PSYCHROMETER | TL 2635 |
| TEMPLATE CASSETTE LID TYPE 2 | 9194501 |
| THICKNESS GAUGE | TL 2372 |
| TORX KEY SET | TL 3261 |
| VERNIER CALLIPER | TL 1727 |

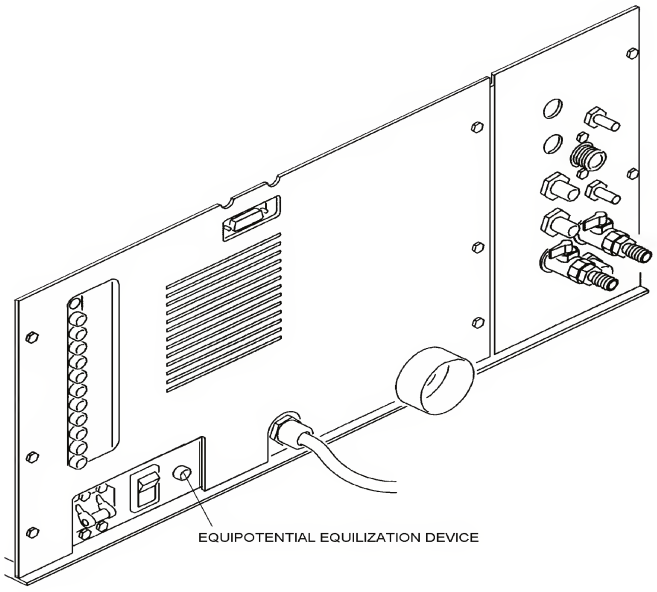
# ELECTRICAL SAFETY

**After the installation of the XML 300 / XML 300 PLUS check the electrical safety of it. Follow your local regulations. Ensure that all panels are mounted properly.**

# EQUIPOTENTIAL EQUILIZATION DEVICE

## EUROPE ONLY

According to european safety regulations for medical devices the XML300 Plus must be properly connected to the EQUIPOTENTIAL EQUILIZATION DEVICE($E^2D$) if the unit is operated within a distance of 1.5 m from a patient. The $E^2D$ and the CONNECTING CABLE must be provided by the customer.



# CHAPTER 2

# UNPACKING THE XML 300 / XML 300 Plus

1. Cut the metal BANDS

2. Remove the carton.

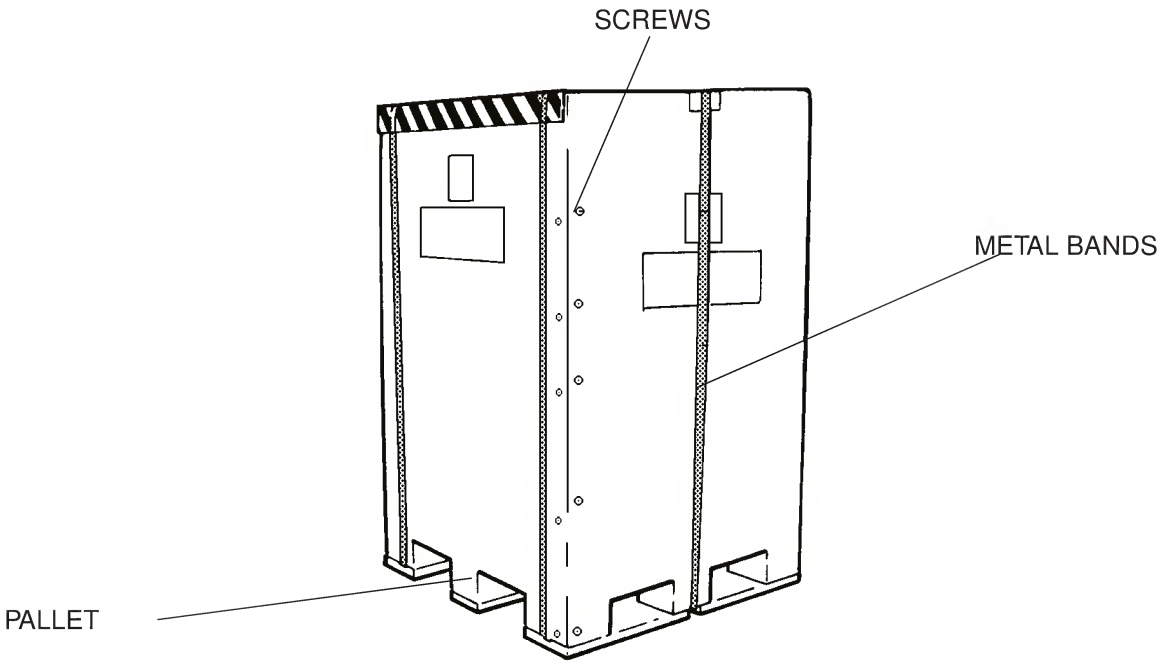



figure 2 - 1

3. Remove the BANDS from RAMP.

4. Carefully swing out the RAMP to the floor.

5. Move the XML 300 / XML 300 Plus slowly down the RAMP.

**Warning**

USE CARE WHEN MOVING THE XML 300 / XML 300 PLUS DOWN THE RAMP.

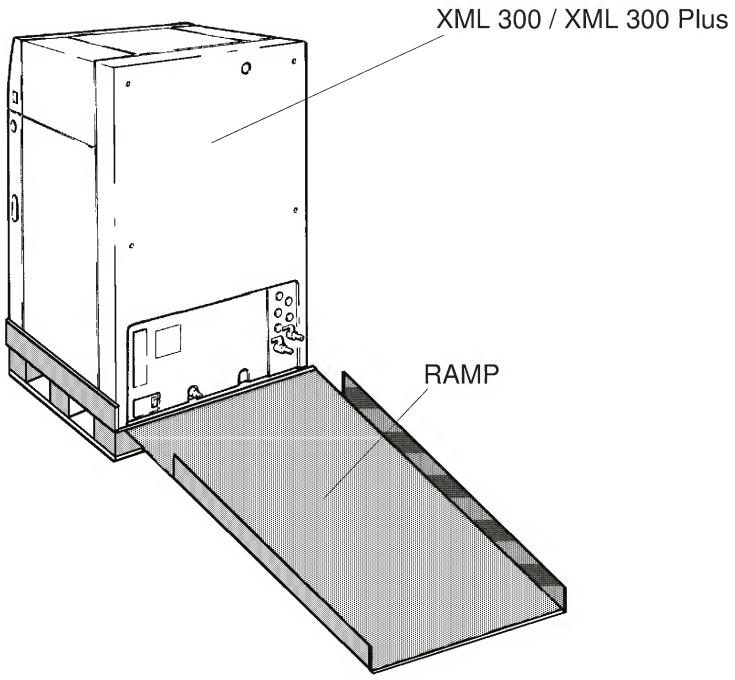



figure 2 - 2

6. Remove the TOP COVER.

**7**. Remove: REAR COVER, REAR PLATE.

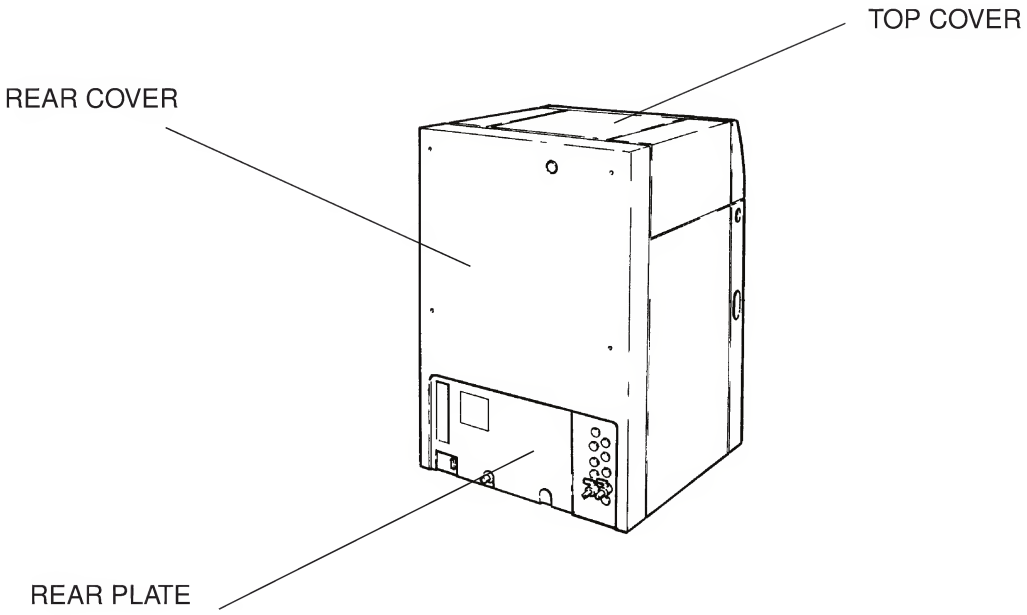



figure 2 - 3

**8**. Rotate out the FILM CHUTE.

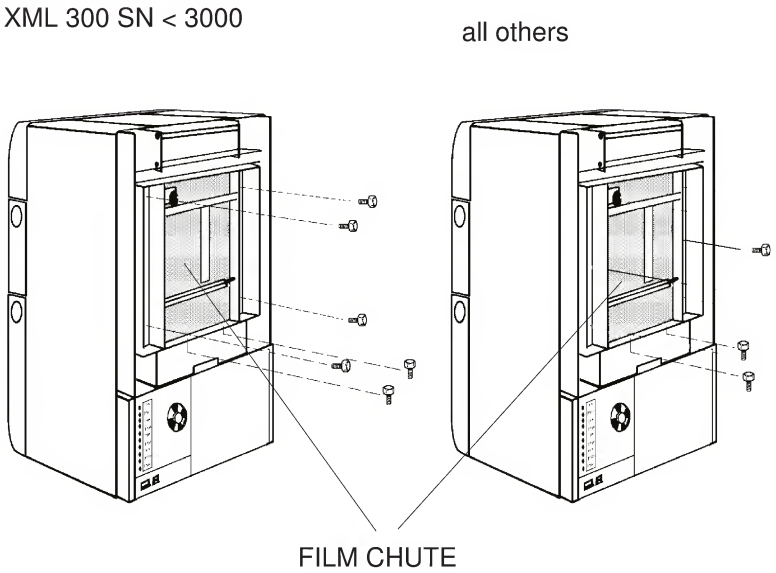



figure 2-4

**9**. Carefully remove the SHIPPING PROTECTIONS from the FILM POCKET and the MAGAZINES.

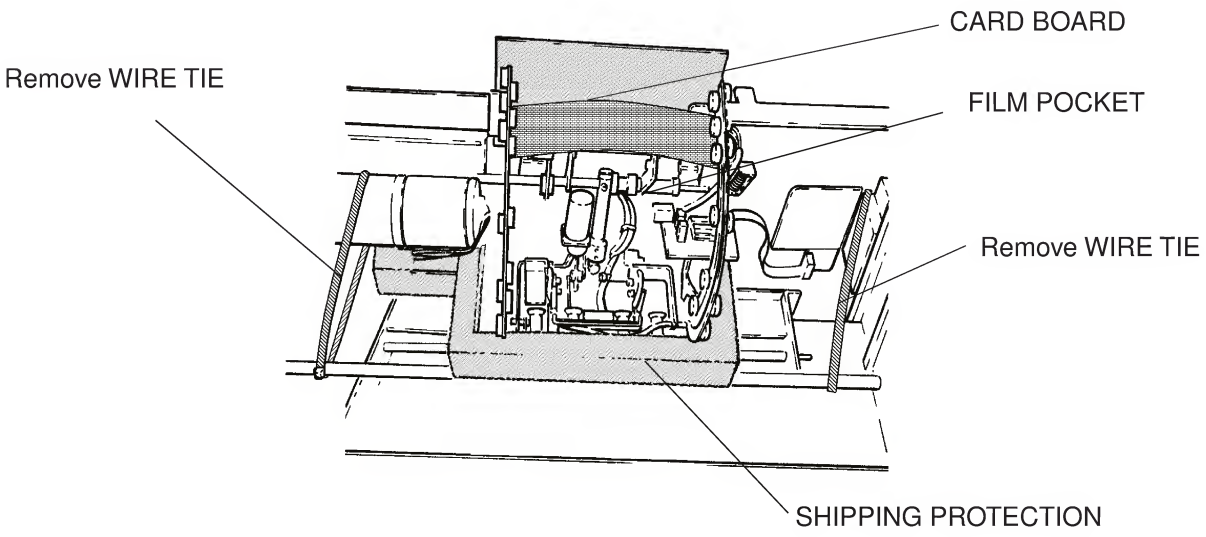



figure 2 - 5

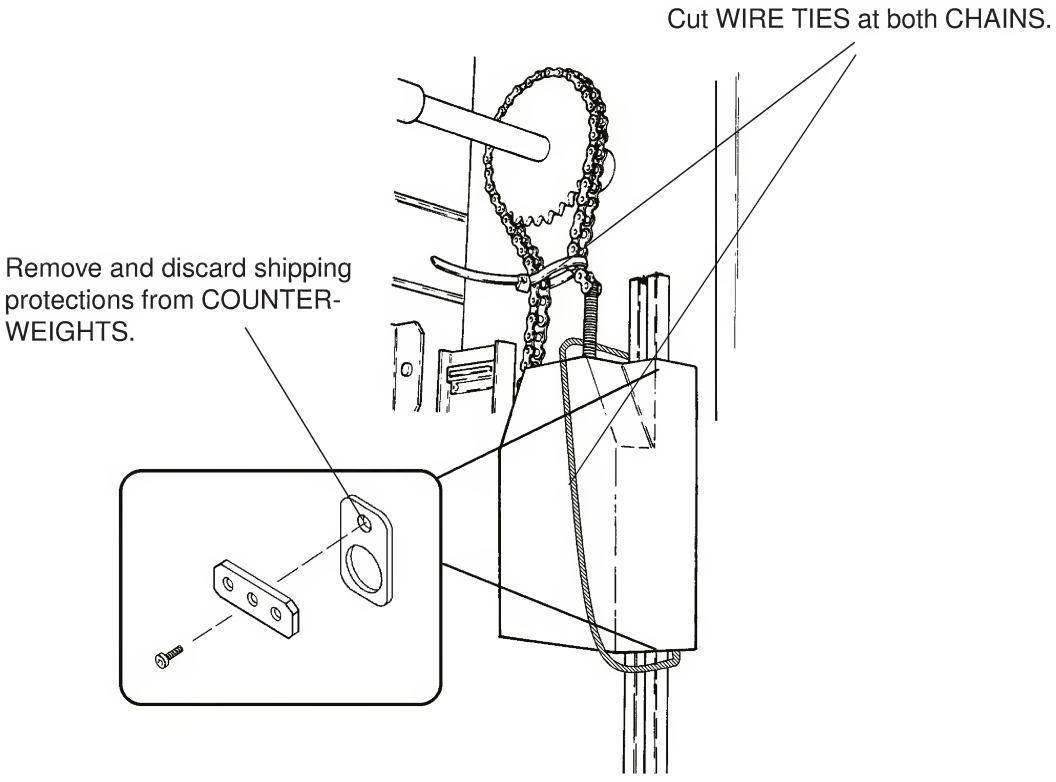



figure 2 - 6

**10.** Rotate in the FILM CHUTE and fasten it. Use SCREWS removed in step 8.

**ESD**

Take proper ESD safety precautions

**11.** Remove right-hand SIDE COVER. Remove the SHIPPING PROTECTIONS from the PRINTED CIRCUIT BOARDS.

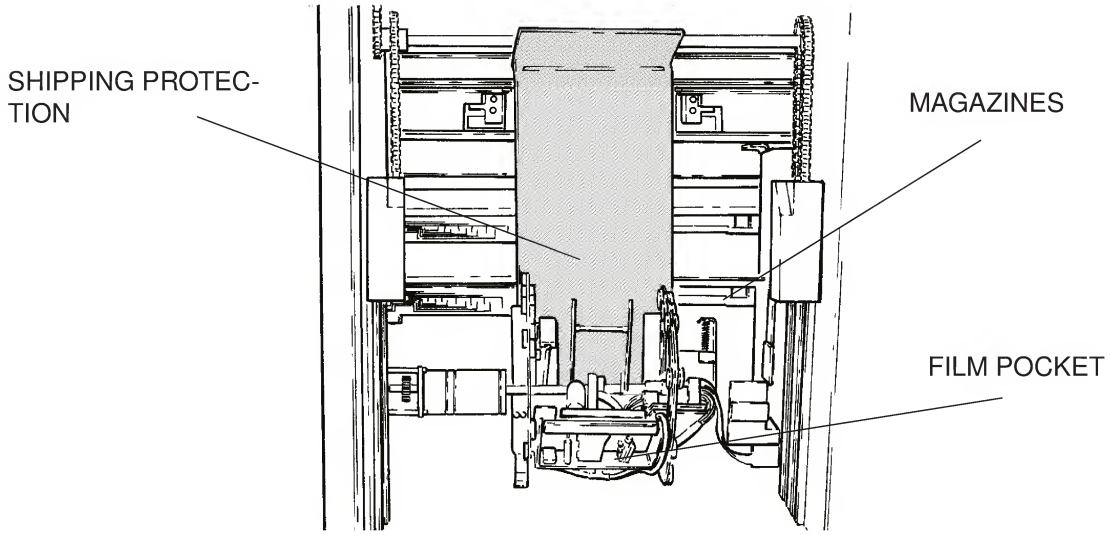



figure 2 - 7

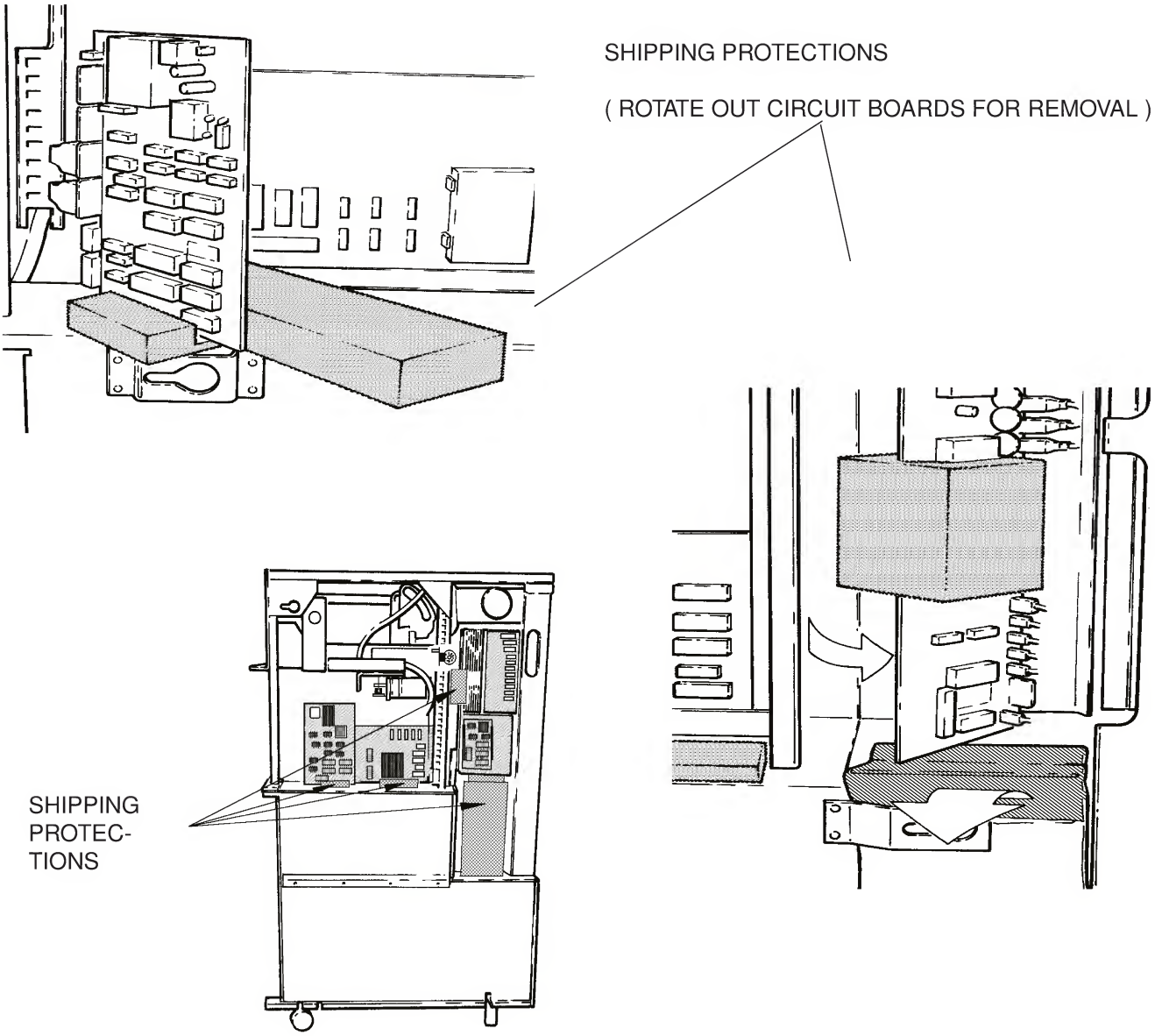

SHIPPING PROTECTIONS
( ROTATE OUT CIRCUIT BOARDS FOR REMOVAL )
SHIPPING
PROTEC-
TIONS

figure 2 - 8

**12.** Remove the WIRE TIES holding the SUCKER BAR CARRIAGE.

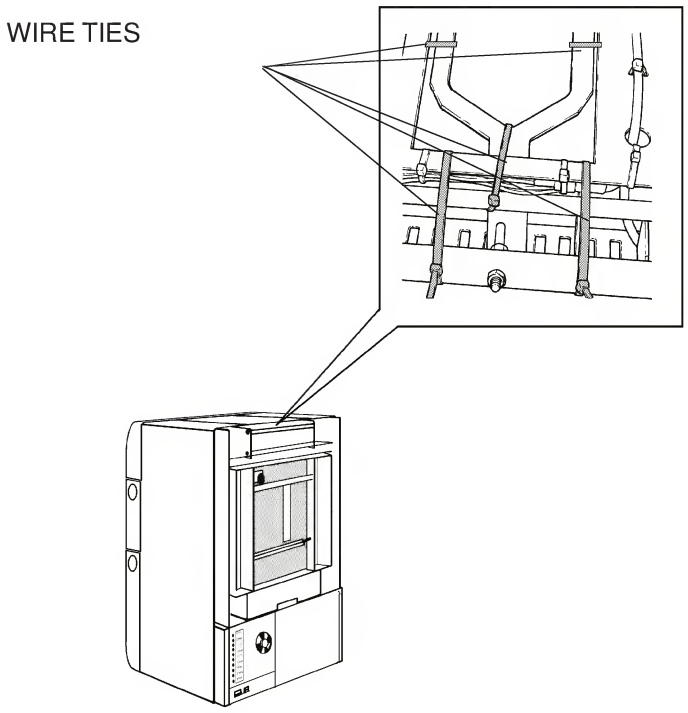



figure 2 - 9

**13.** Remove the SHIPPING PROTECTION from the right and left hand BLOW PIPE MOUNT ASSEMBLIES.

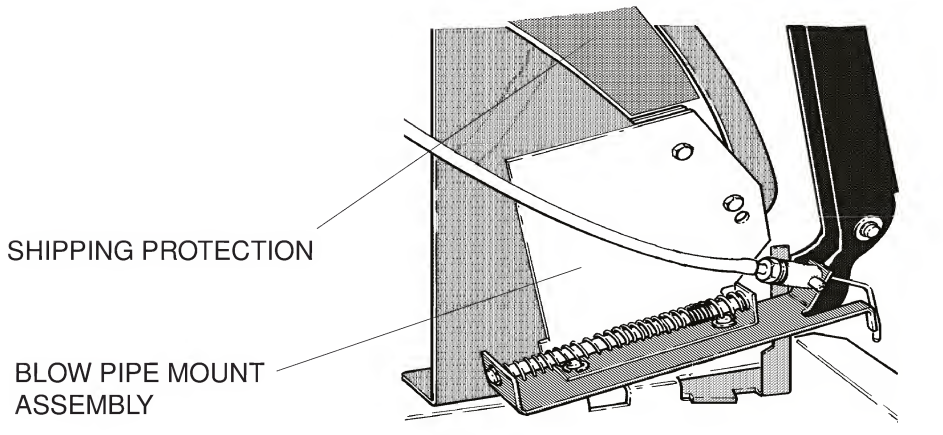



figure 2 - 10

**14.** Pull out the FILM PROCESSOR. Remove the SHIPPING PROTECTIONS. See CHAPTER 3 and 4 for details.

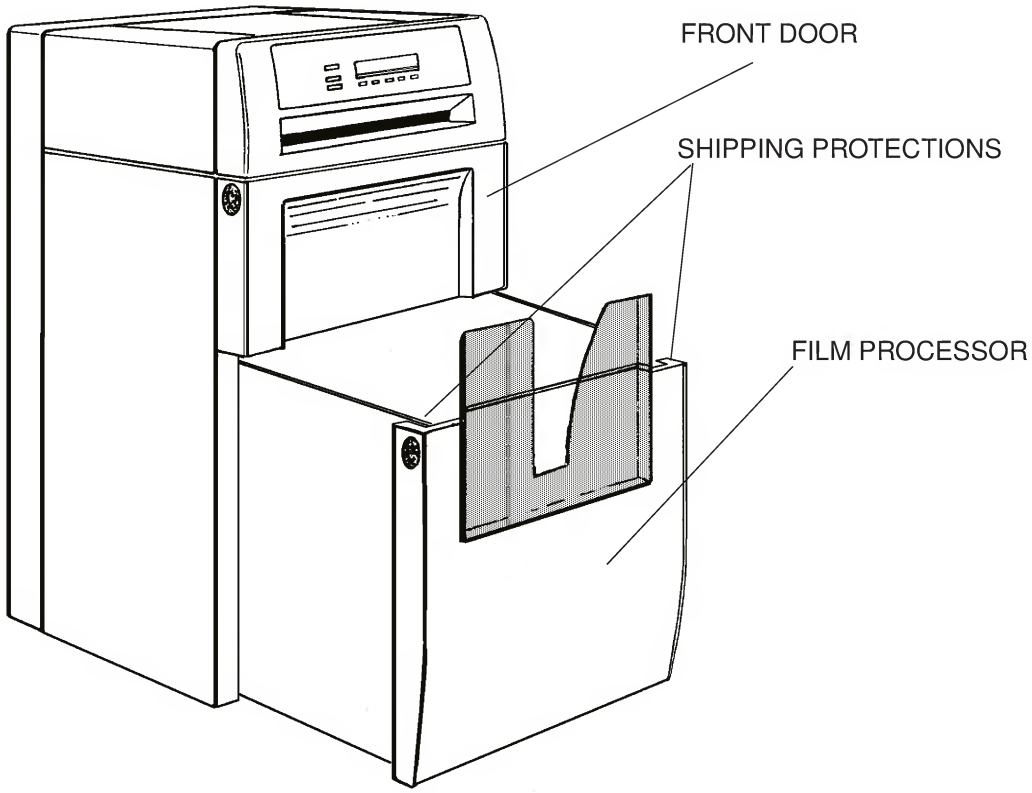



figure 2 - 11

**15.** Push back the FILM PROCESSOR into the XML 300 / XML 300 Plus.

# CHAPTER 3

# UNPACKING THE *Kodak X-Omat* 270 RA INTEGRATED PROCESSOR

## REMOVING PACKING MATERIALS

1. Pull out the PROCESSOR from the XML 300.

2. Remove SHIPPING PROTECTIONS.

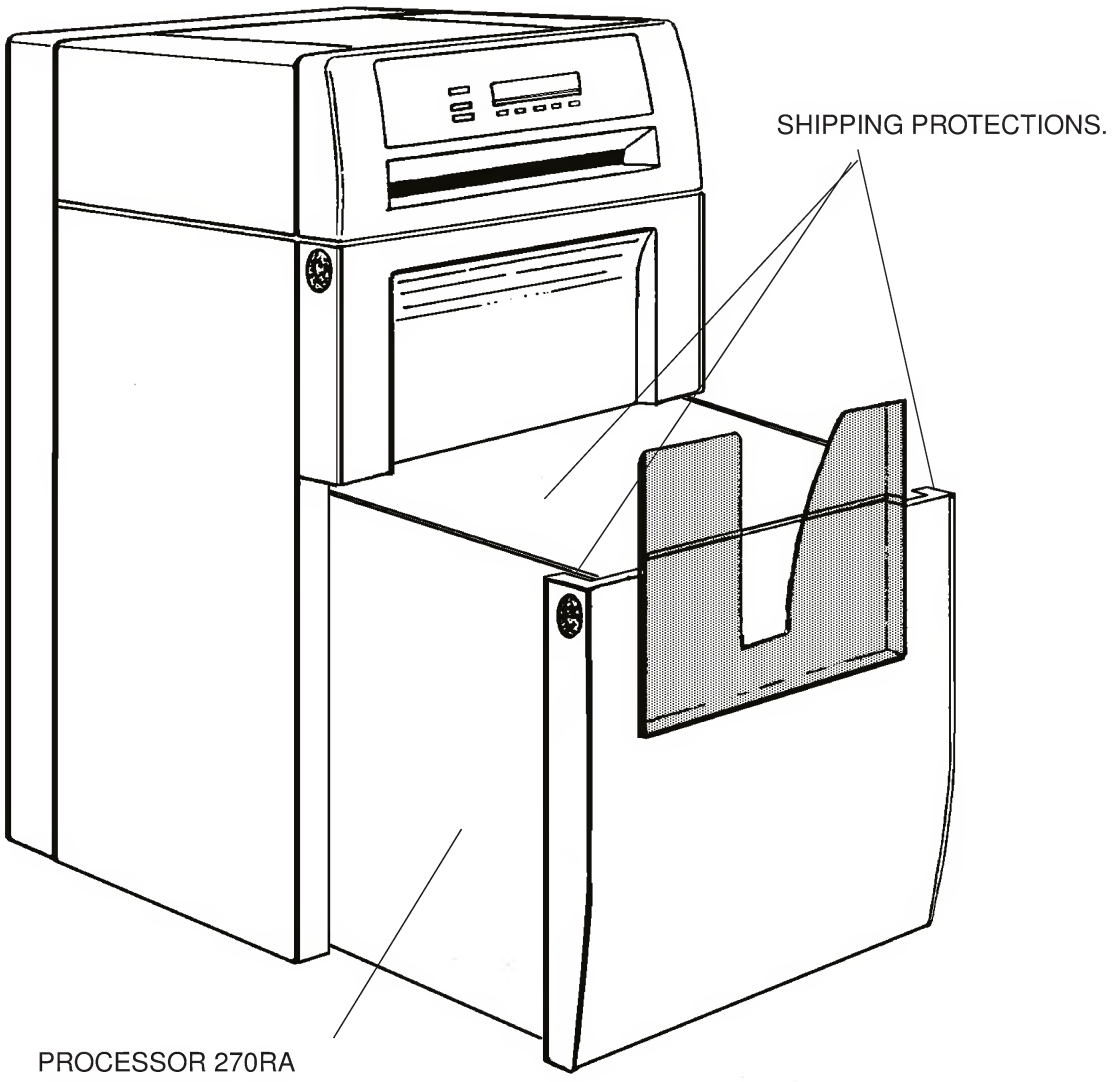



figure 3 - 1

## REMOVING RACKS AND CROSSOVERS

3. Remove and discard the following:
    - CARDBOARD COVERS
    - CARDBOARD OUTER SHELL
    - POLYSHEETING
    - CARDBOARD covering the top of the PROCESSOR.

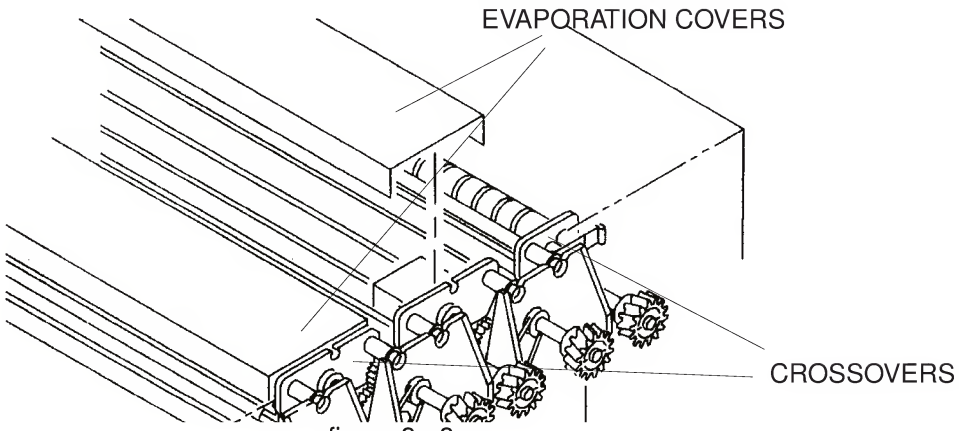


figure 3 - 3

4. Remove the 2 EVAPORATION COVERS from the 2 CROSSOVERS.

5. Remove the MANUAL and PRE-PACK BAGS.

6. Remove and discard the 2 CARDBOARD BLOCKS located on top of the PROCESSOR.

7. Remove the SPLASH GUARD and DRIP TRAY located under the PROCESSOR.

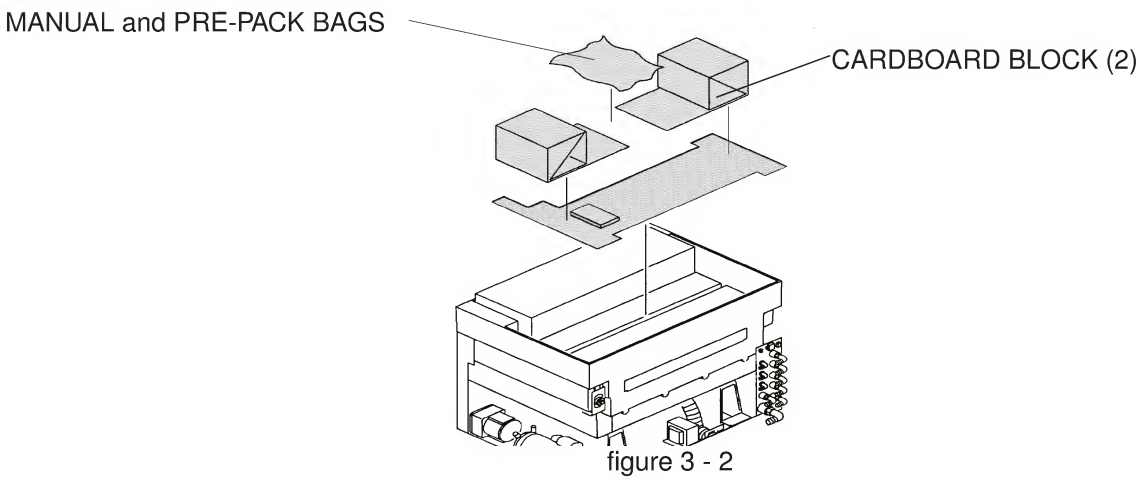


figure 3 - 2

8. Remove the following:
    - YOKE
    - DEVELOPER/FIXER CROSSOVER
    - FIXER/WASH CROSSOVER
    - ENTRANCE DETECTOR

9. Remove the 3 sheets of CARDBOARD protecting the DEVELOPER RACK, FIXER RACK, and the DRYER RACK.

10. Remove the DRYER RACK.

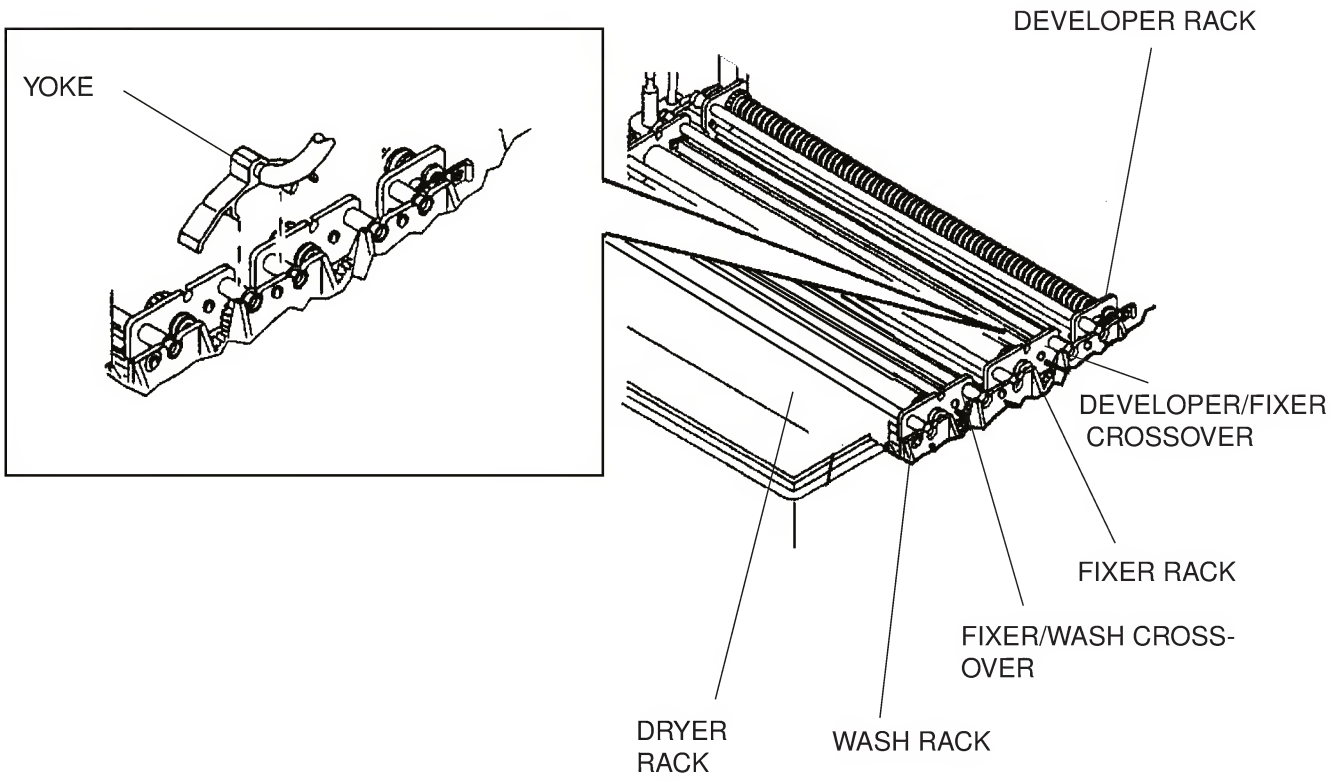



figure 3 - 4

**11.** Remove the TOP COVER and BACK COVER from the DRYER RACK.

**12.** Remove the 2 sections of PACKING MATERIAL from the DRIVE END of the AIR TUBES, 1 from the front and 1 from the back.

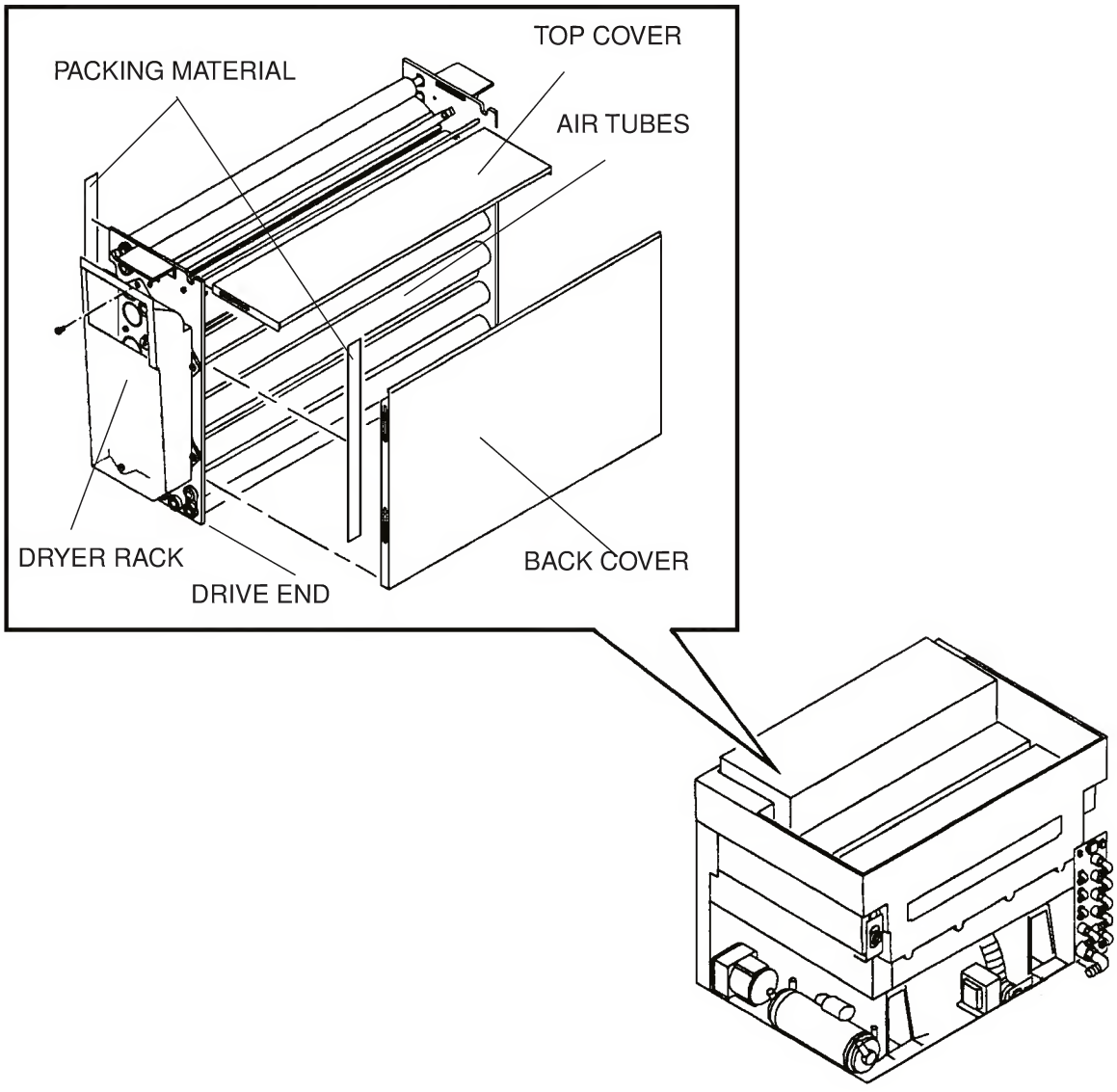



figure 3 - 5

**13.** Remove the DEVELOPER, FIXER, and WASH RACKS.

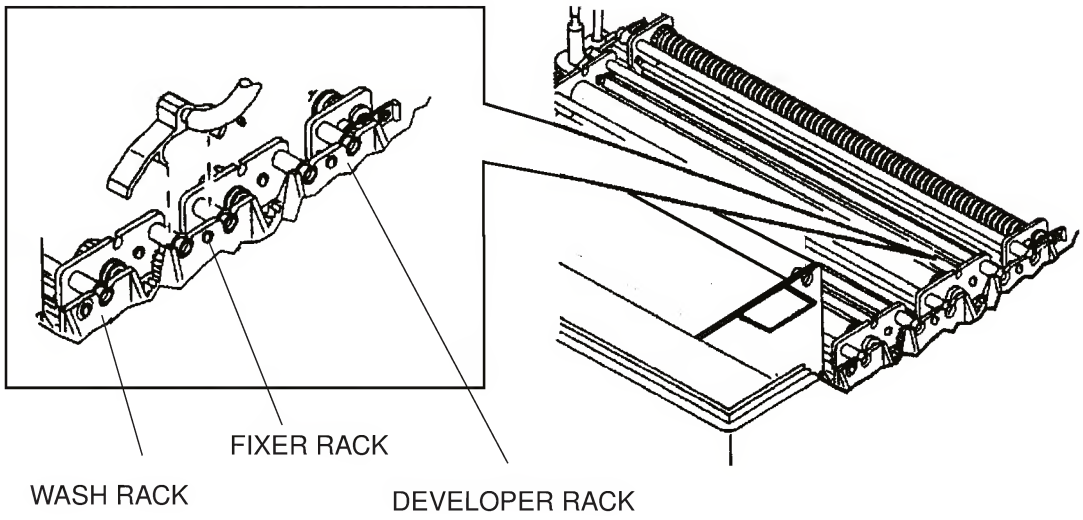



figure 3 - 6

**14.** Remove the 2 HEAT EXCHANGE PROTECTORS from the WASH TANK.

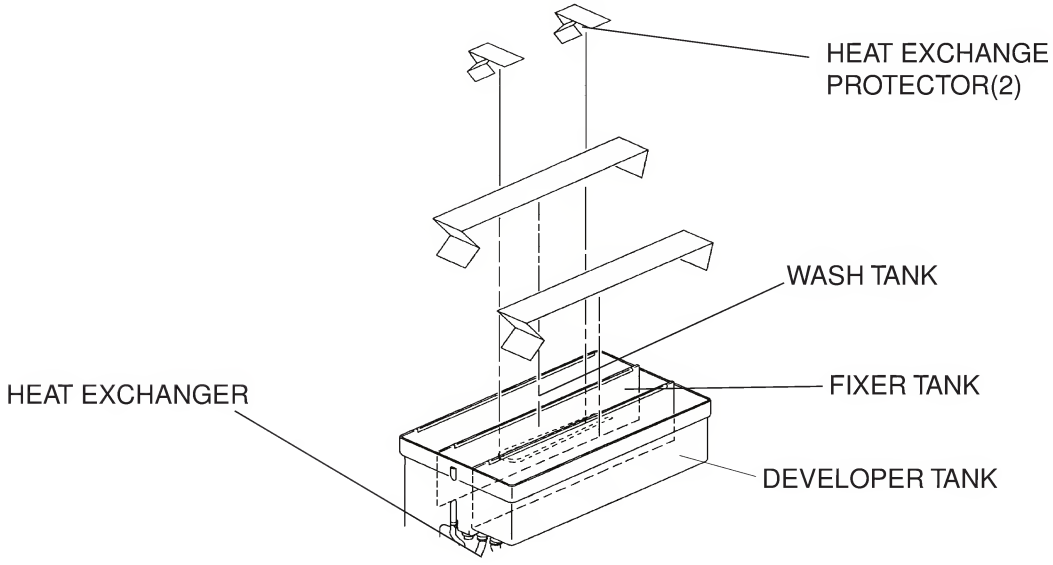



figure 3 - 7

**15.** Remove the CARDBOARD from the bottom of the DEVELOPER TANK and FIXER TANK.

## SILVER RECOVERY UNITS

**Note**

**If the customer is using an optional recirculating silver recovery unit, install it at this time. A processor connection kit for silver recovery units may be needed.**

Use the installation instructions packed with the kit to install it.

## INSTALLING THE WATER LINE AND YOKE

1. Install the following parts and ensure that they are seated correctly:
    - DEVELOPER RACK
    - FIXER RACK
    - WASH RACK
    - DRYER RACK
    - ENTRANCE CROSSOVER
    - DEVELOPER/FIXER CROSSOVER
    - FIXER/WASH CROSSOVER

2. Connect the WATER LINE of the WASH RACK to the fitting. Check that the WATER LINE is seatedcorrectly.

3. Connect the YOKE of the WASH RACK TUBE to the DEVELOPER/FIXER and the FIXER/WASH CROSSOVERS.

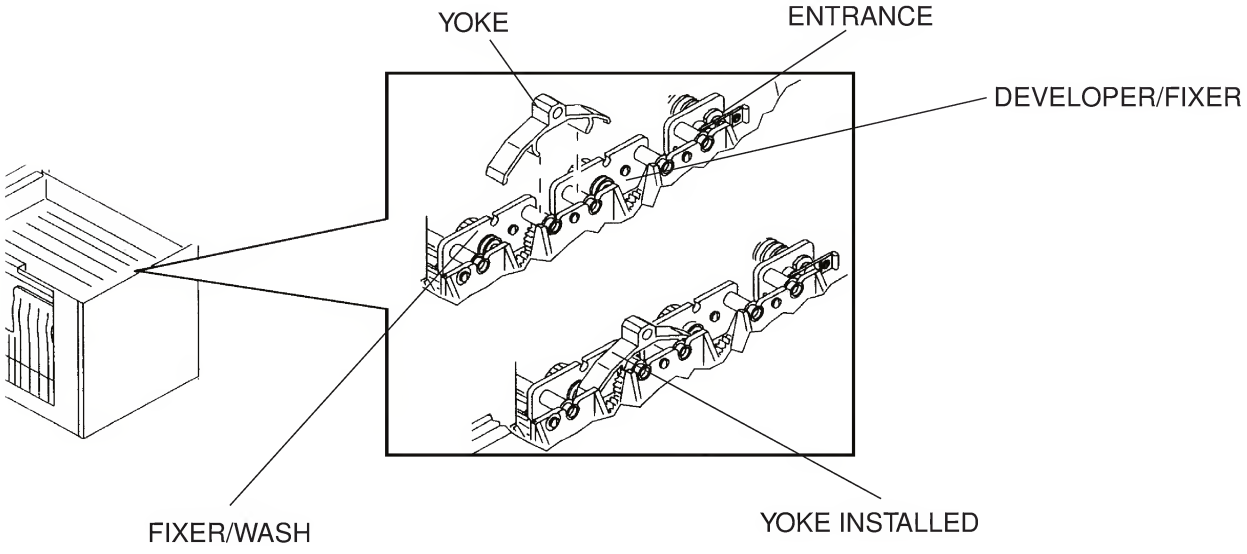



figure 3 - 8

**4**. Install the EVAPORATION COVERS.

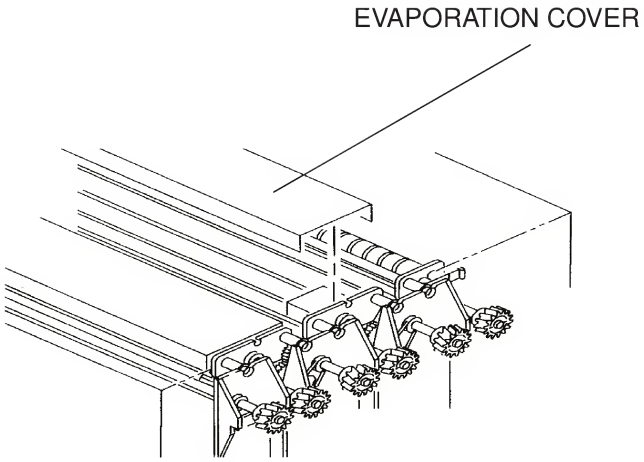
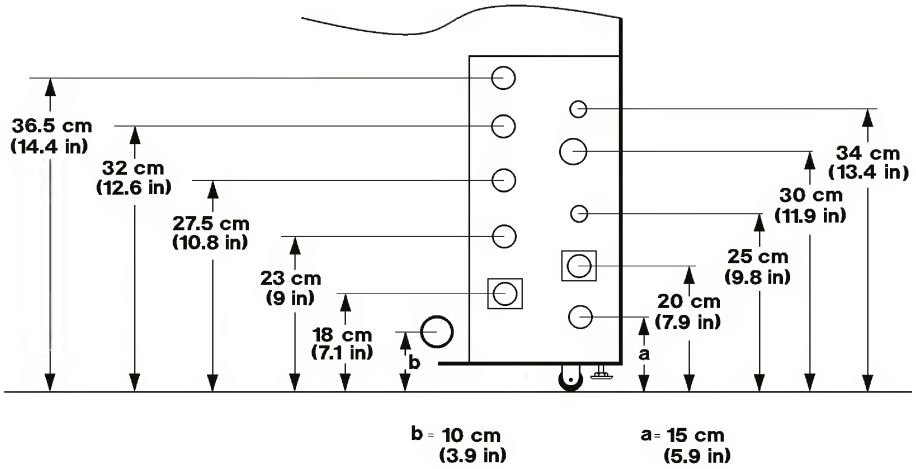



figure 3 - 9

## SERVICES




| | |
|---|---|
| A | 3/8 inch inner dimension hose fitting |
| B | 5/8 inch inner dimension hose fitting |
| C | 1 inch inner dimension hose fitting |
| D | ¾ inch diameter<br>11 ½ Garden Hose Thread (GHT)<br>Kodak provides 2 Adapters during installation. The Adapters enable you to connect the Processor to a:<br>• ¾ in. Hose or<br>• ½ in. NPT |

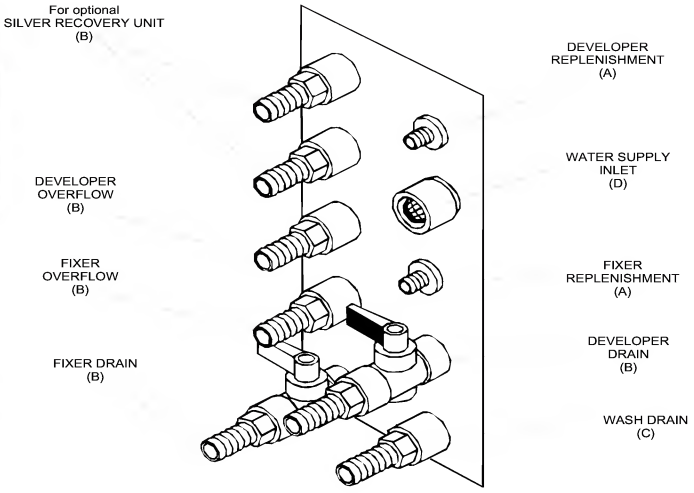



figure 3-10

## WATER SUPPLY, REPLENISHMENTS TANKS, STRAINERS, AND DRAINS

## CONNECTING THE WATER SUPPLY

**Warning**

All plumbing must comply with local and national codes.

1. Connect the main water supply to the WATER SUPPLY INLET. The following 2 illustrations show the complete water-to-processor layout and connection fittings.

**Note**

A mixing valve is not required for the 270RA PROCESSOR if the incoming water temperature is between 4 - 29 C (40 - 85 F). However, tempered water is recommended for mixing chemicals and cleaning the PROCESSOR TANKS. The PROCESSOR has an internal 12.7 mm (0.5 in.) water gap in the WASH RACK. A check valve (or vacuum breaker) should not be necessary; however, check and observe local codes.

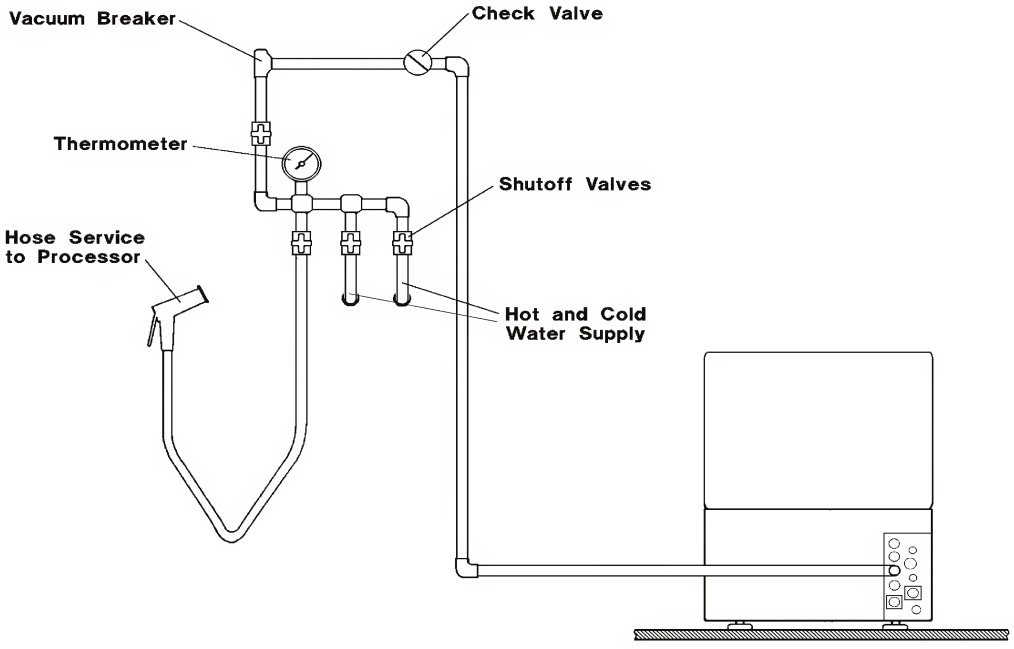



figure 3 - 11

## CONNECTING THE REPLENISHMENT TANKS AND STRAINERS

1. Installations use external, or AUTOMIXER REPLENISHMENT TANKS. Position and connect the customer's external TANKS or AUTOMIXER.

**Note**

Use the manufacturer's installation to install the AUTOMIXER.

2. Install the STRAINERS into the TUBING of the REPLENISHMENT TANKS or AUTOMIXER.

3. Connect the REPLENISHMENT LINES to the DEVELOPER and FIXER REPLENISHMENT FITTINGS.

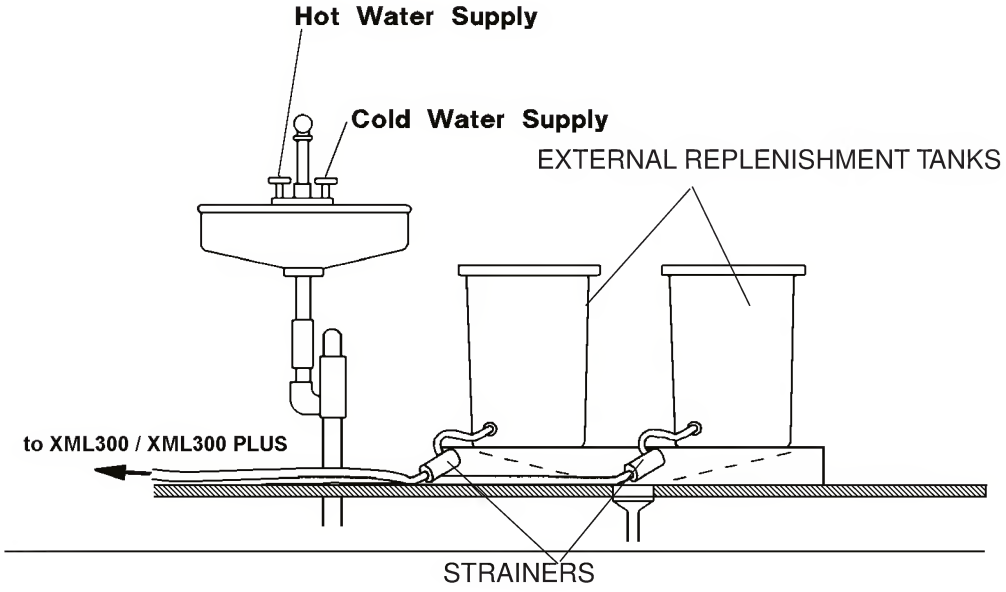



figure 3 - 12

4. **Carefully** check that the following DEVELOPER and FIXER REPLENISHMENT LINE CONNECTIONS are correct:

    - from the REPLENISHMENT TANK to the FITTING
    - from the FITTING to the suction side of the PUMP
    - from the outside of the PUMP to the SOLUTION TANK

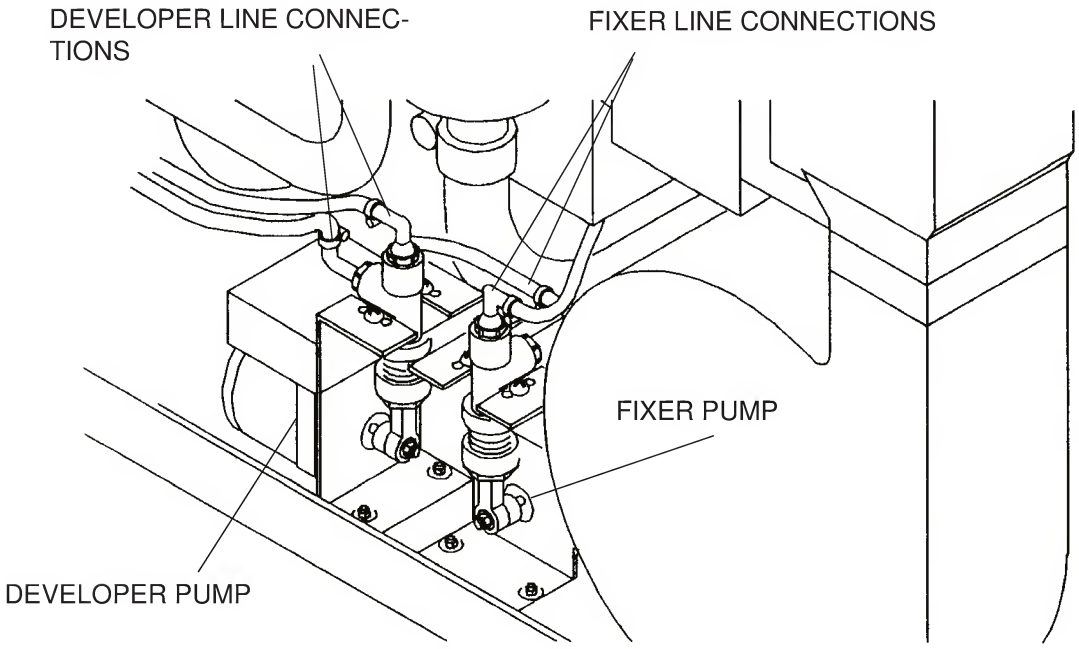



figure 3 - 13

## CONNECTING THE DRAINS

**Caution**

Follow all local codes for drains. Do not use brass or copper for drain lines. Severe corrosion will result. Do not make a solid connection at the floor DRAIN. An open floor DRAIN is required. Provide a minimum of 2.5 cm (1.0 in.) clearance between the pipe and the floor drain.

1. Check that the DEVELOPER and FIXER DRAIN VALVES are closed.

2. Connect the following to the FLOOR DRAINS and route the TUBING as required.

**Note**

TUBING is not supplied. Check that HOSES are not kinked or looped. The WASH OVERFLOW/DRAIN HOSE must constantly slope to the DRAIN.

- DEVELOPER OVERFLOW
- DEVELOPER DRAIN
- FIXER DRAIN
- FIXER OVERFLOW to the DRAIN or SILVER RECOVERY CARTRIDGE if used.
- WASH OVERFLOW/DRAIN

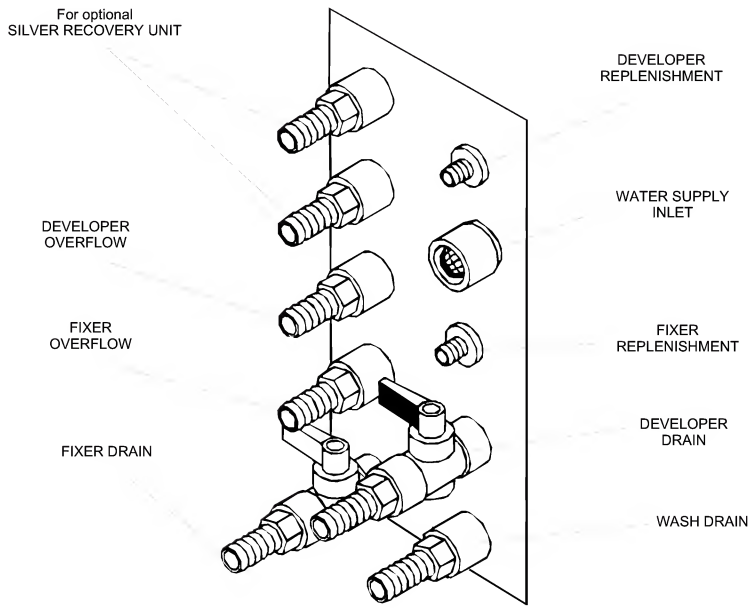



figure 3-14

## CONNECTING THE EXHAUST

Use the following procedures to check the negative air flow of the site and connect the EXHAUST.

1. Connect a 7.62 cm (3.0 in.) EXHAUST HOSE from the PROCESSOR to the building DUCT with an adjustable gap. Check the negative exhaust flow of the building by using the following procedure.

**Note**

This procedure is designed to check the negative exhaust flow of the building not of the PROCESSOR.

2. Check that the PROCESSOR is deenergized.

3. Use AIR METER TL-2431 to measure negative static pressure in the EXHAUST DUCT 30.5 cm (12 in.) from the end that will be connected to the PROCESSOR.

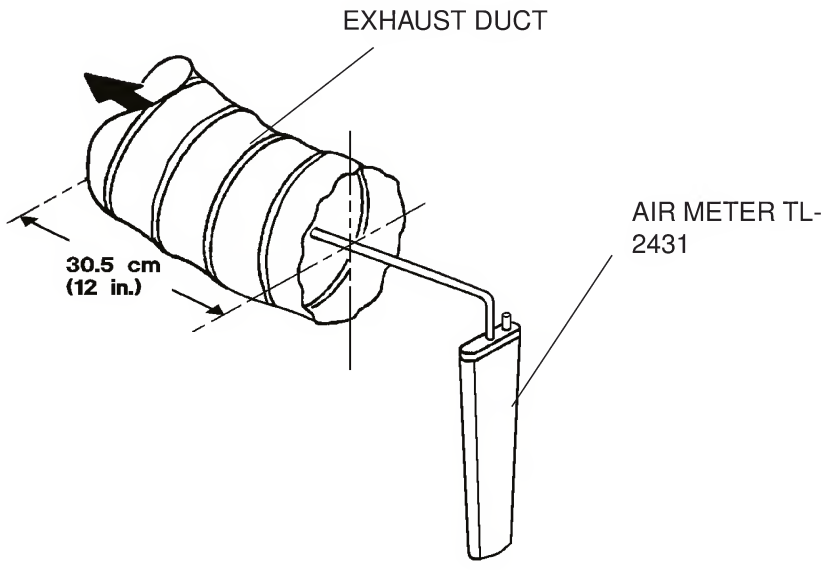



figure 3 - 15

4. Adjust the gap between the BUILDING EXHAUST DUCT and the DUCT from the PROCESSOR to obtain the required static pressure.

## MEASURING THE NEGATIVE STATIC PRESSURE:

**Caution**

Do not install the XML 300 if the pressure of the EXHAUST is not correct! Incorrect venting can cause serious damage to the XML 300.

**Negative Static Pressure, Water Head**

| Duct Diameter | MIN | MAX |
|---|---|---|
| 76 mm (3 in.) | 0.76 mm (0.03 in.) | 1.02 mm (0.04 in.) |
| 102 mm (4 in.) | 0.25 mm (0.01 in.) | 0.51 mm (0.02 in.) |

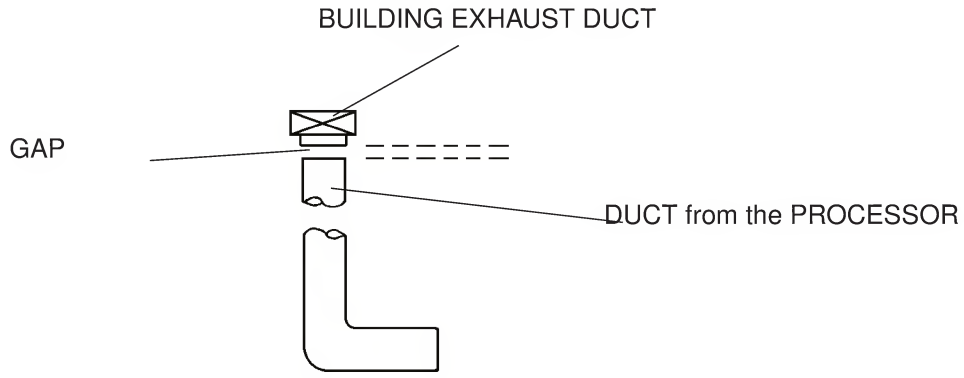



figure 3 - 16

5. Connect the EXHAUST HOSE to the EXHAUST CONNECTION of the PROCESSOR.

# CHAPTER 4

# UNPACKING THE *Kodak X-Omat* 3000 RA INTEGRATED PROCESSOR

## REMOVING PACKING MATERIALS

1. Pull out the PROCESSOR from the XML 300 Plus.

2. Remove SHIPPING PROTECTIONS.

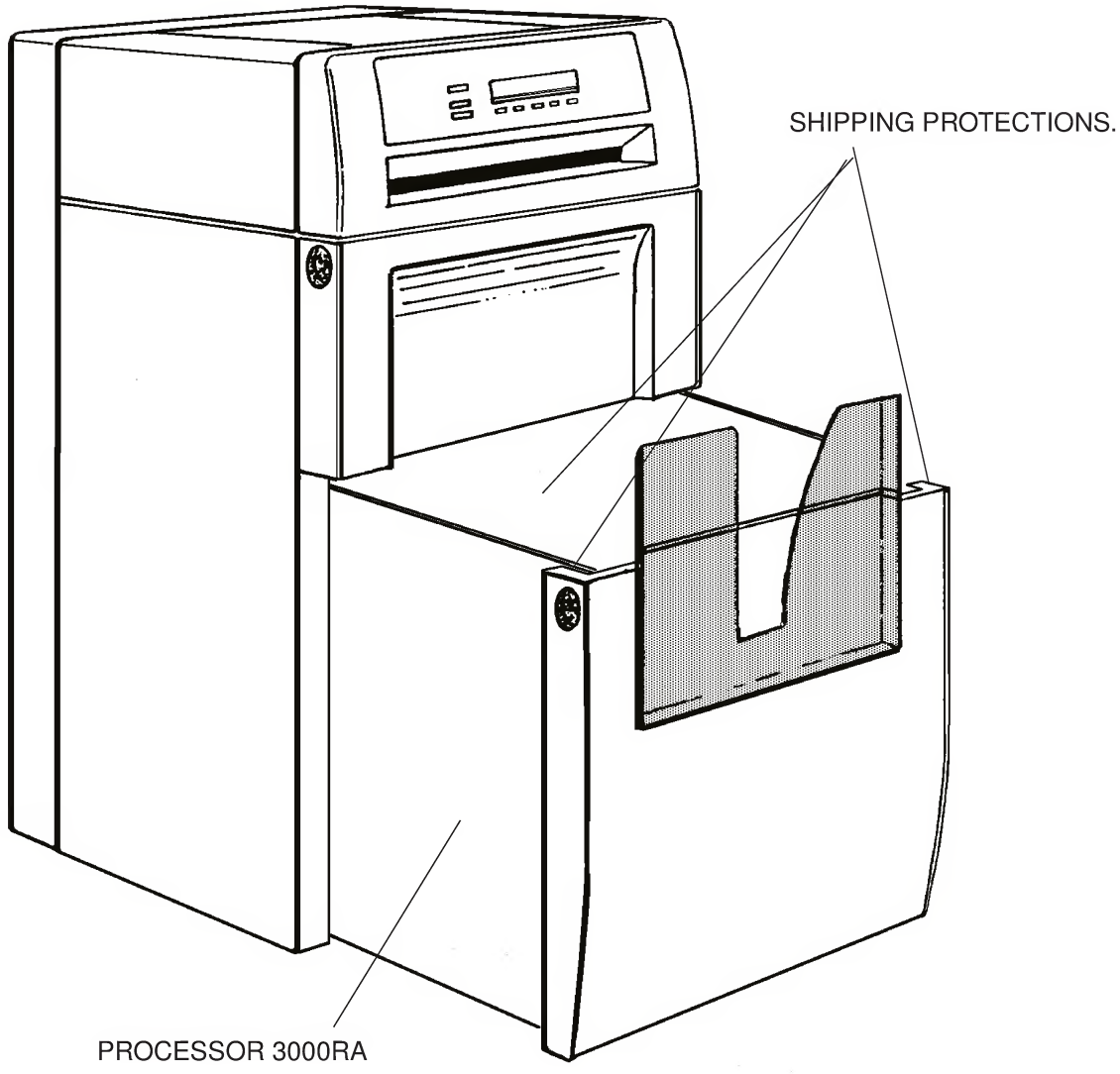



figure 4 - 1

**3**. Remove and discard all visible packing material.
Remove and keep:

- carton of miscellaneous parts
- SPLASH GUARD
- DRIP TRAY



SPLASH GUARD DRIP TRAY

figure 4-2

**4**. Remove:

- 3 CROSSOVERS
- 4 RACKS

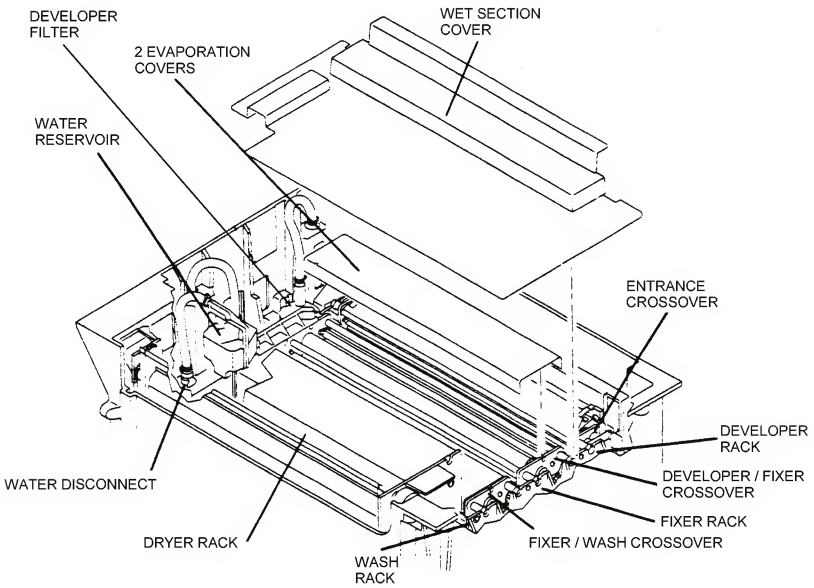



figure 4-3

**5**. Remove all packing material from the 3 TANKS.

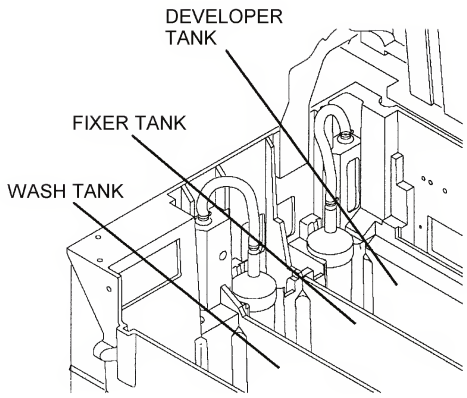



figure 4-4

## INSTALLING THE RACKS, CROSSOVERS and WASH RESERVOIR

**1**. Install:

- 4 RACKS
- 3 CROSSOVERS

**2**. Install the WASH RESERVOIR. Connect the WATER DISCONNECT.

**3**. Check that all parts are seated correctly.

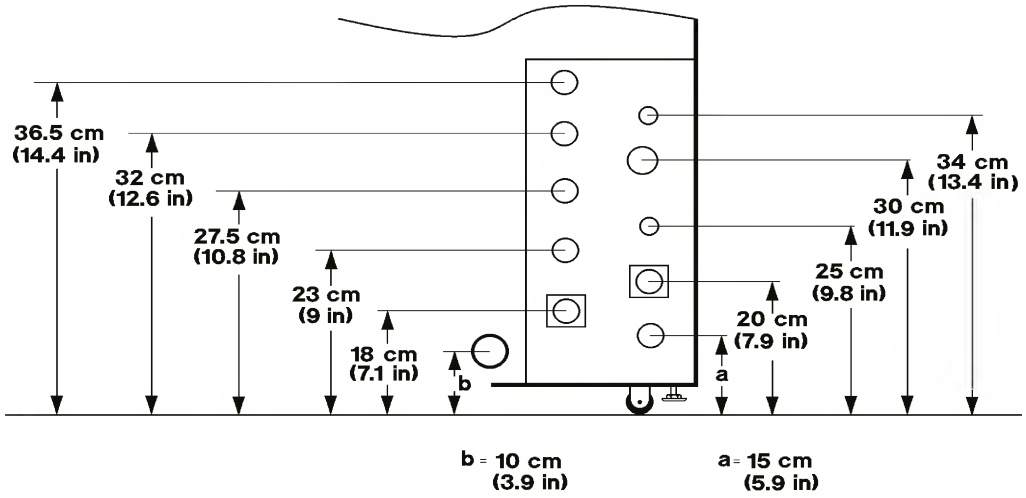
**4**. Install the 2 EVAPORATION COVERS and WET SECTION COVER.

**Caution**

The HOSE CLAMPS can be loose after shipment.

**5**. Tighten all metal HOSE CLAMPS.

# SERVICES




| | |
|---|---|
| **A** | 3/8 inch inner dimension hose fitting |
| **B** | 5/8 inch inner dimension hose fitting |
| **C** | 1 inch inner dimension hose fitting |
| **D** | ¾ inch diameter<br>11 ½ Garden Hose Thread (GHT)<br>Kodak provides 2 Adapters during installation. The Adapters enable you to connect the Processor to a:<br>• ¾ in. Hose or<br>• ½ in. NPT |

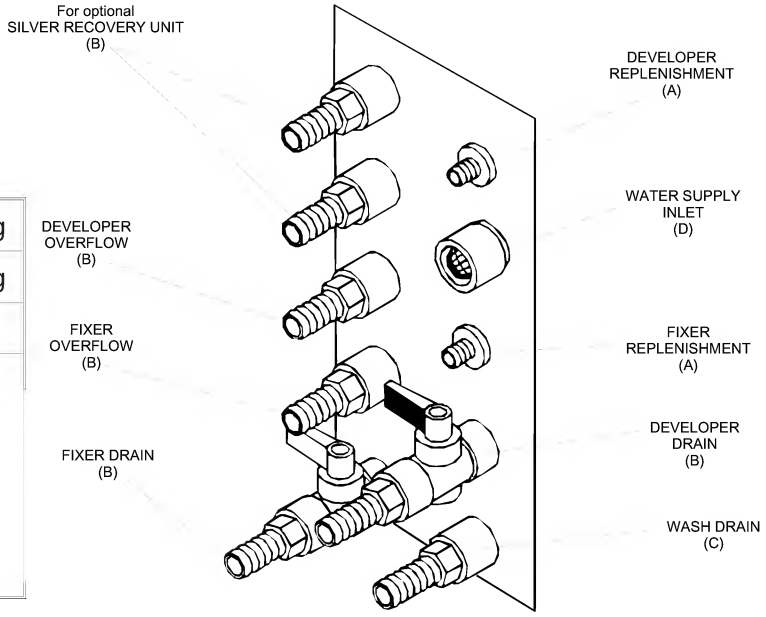



figure 4-5

# MAKING THE PLUMBING CONNECTIONS

**Warning**

All plumbing must comply with local and national codes.

# CONNECTING THE WATER SUPPLY

1. Connect the input water to the WATER SUPPLY INLET.
   Check that:

   - the customer installed a 50 micron WATER FILTER in the input water line. The FILTER is required.
   - the water pressure is 173 - 448 kPa (25 - 65 psi). If the water pressure is too high, have the customer install a PRESSURE REGULATOR to prevent the WASH WATER SOLENOID from malfunctioning.
   - the water temperature is 4.5 - 27°C (40 - 80°F). The water must be a minimum of 6.7°C (12°F) below the developer temperature set point to provide the correct developer temperature control. If the water is too cold, the customer must install a MIXING VALVE.

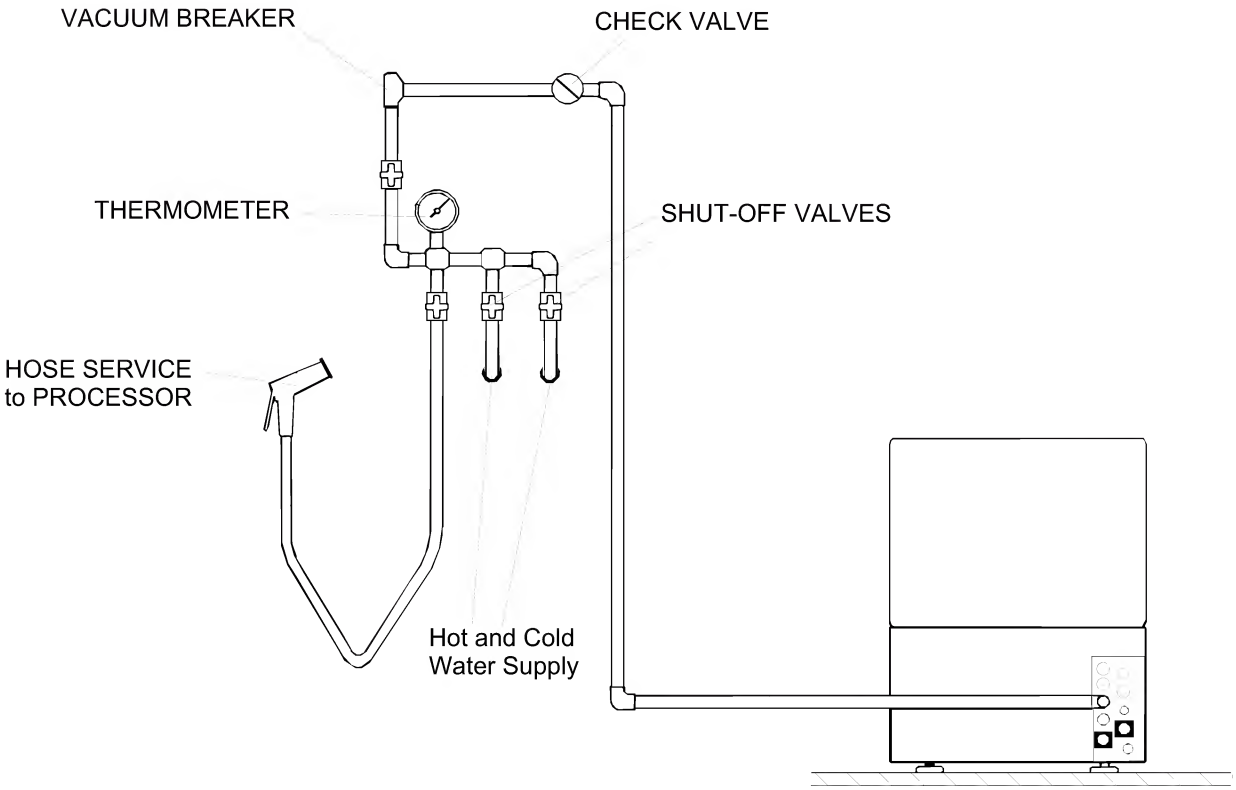



figure 4-6

**Note**

- Kodak suggests a:
  - PRESSURE GAUGE to monitor the water pressure

  - tempered water supply for cleaning the PROCESSOR and for mixing chemicals manually.

- The PROCESSOR has an internal 2.54 cm (1.0 in.) water gap in the WASH RESERVOIR. A CHECK VALVE or VACUUM BREAKER should not be necessary, unless local codes require one.

## CONNECTING THE REPLENISHMENT TANKS AND STRAINERS

**Note**

Customers may use internal or external REPLENISHMENT TANKS or a chemical mixing system. An example of a chemical mixing system is a *Kodak* AUTOMIXER III. To install a chemical mixing system, use the installation instructions for the system.

1. Install and connect the REPLENISHMENT TANKS or chemical mixing system to the PROCESSOR.
   - Use 3/8 - in. ID HOSE.
   - Install the STRAINERS in the HOSES.

2. If the customer has a Silver Recovery System, install it.

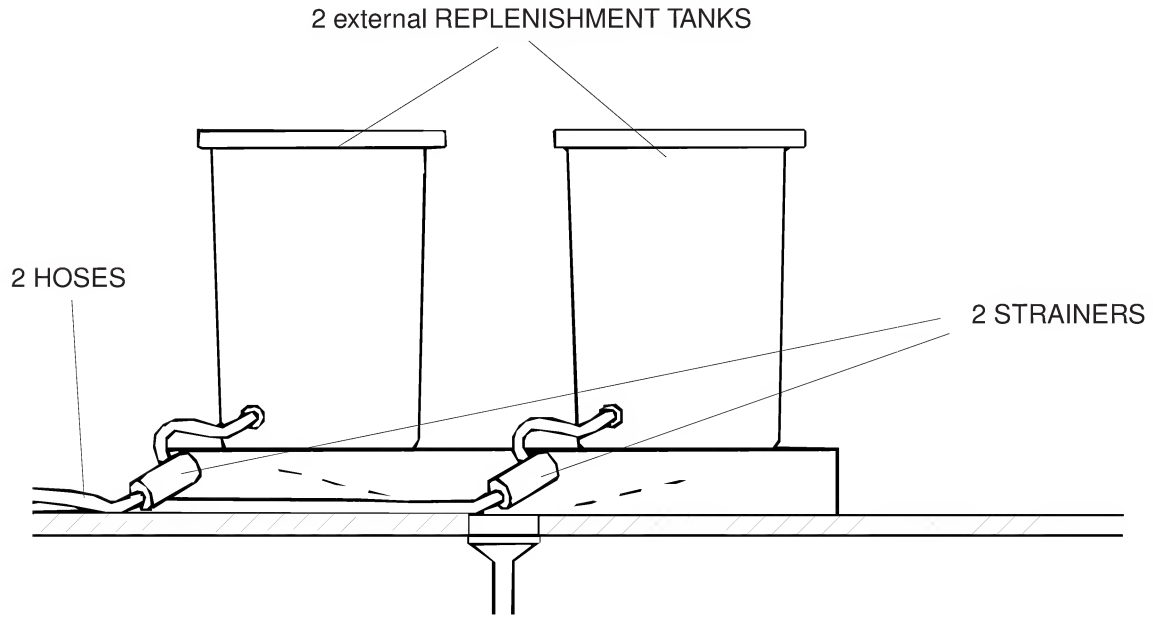



figure 4-7

# CONNECTING THE DRAINS

**Warning**

DRAINS must be made of chemical resistant, non-corrosive material. Use PVC or the equivalent.

1. Check that the DRAINS comply with the following requirements:

| Subject | Requirements |
|---|---|
| Minimum diameter | 7.6 cm (3 in.) |
| Distance from the PROCESSOR | 1.5 m (60 in.) maximum |
| Height from the floor | flush with the floor |
| HOSES | Reinforced HOSE that will not kink is recommended * |
| Connections to the DRAIN | Corrosive resistant connections should be flexible, not solid. ELBOWS are recommended. * |

* The customer can obtain these parts from Kodak:

| Part No. | Description | Quantity |
|---|---|---|
| 696441 | 1 in. Reinforced HOSE for the DRAIN | Order by the foot |
| 696442 | 5/8 in. Reinforced HOSE for the DRAIN | |
| 1C4521 | 5/8 in. ELBOW for the DRAIN | 4 |
| 1C4524 | 1 in. ELBOW for the DRAIN | 1 |

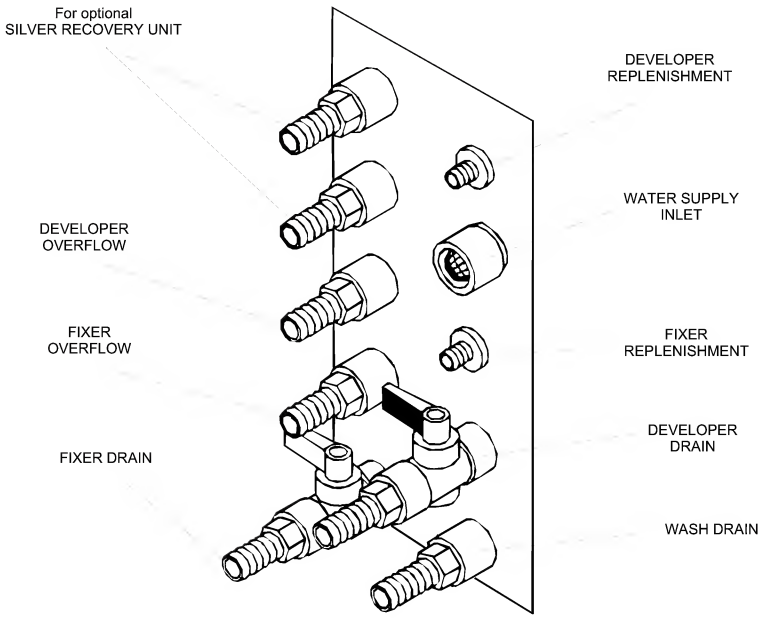



figure 4-8

2. Check that the DEVELOPER and FIXER DRAINS are closed.

**Important**

Check that all the HOSES slope toward the DRAIN. Any obstructions or upward slope in the HOSE from the WASH DRAIN will cause the draining wash water to move back into the WASH TANK. If too much water enters the TANK, the water will overflow onto the floor.

3. Route and connect the following HOSES to the floor DRAIN:
   - DEVELOPER OVERFLOW
   - DEVELOPER DRAIN
   - FIXER DRAIN
   - FIXER OVERFLOW to the floor DRAIN or the CHEMICAL RECOVERY CARTRIDGE
   - WASH DRAIN

## CONNECTING THE EXHAUST SYSTEM

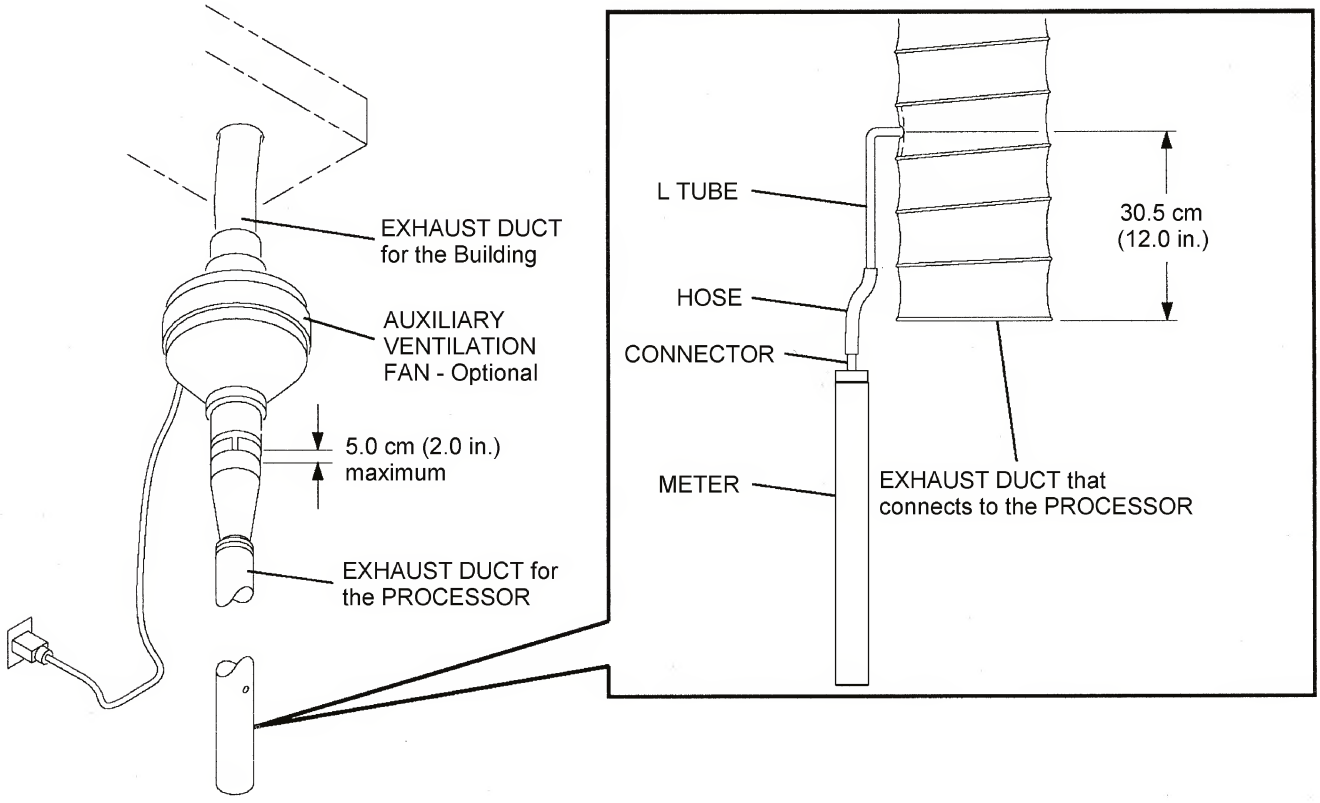



figure 4-9

**Caution**

- For maximum reliability and performance, the PROCESSOR must be connected to an exhaust system with the correct negative pressure.
- Do not install the XML 300 Plus if the pressure of the EXHAUST is not correct! Incorrect venting may cause serious damage to the XML 300 Plus!

1. Check that the negative pressure is correct.

| Diameter of the DUCT | Negative Pressure |
|---|---|
| 7.6 cm (3.0 in.) | 0.8 - 2.5 mm (0.03 - 0.10 in.) of water |
| 10.2 cm (4.0 in.) | 0.3 - 1 mm (0.01- 0.04 in.) of water |

**(a)** Connect the rubber HOSE from the AIR METER TL-2431 to the:

- L TUBE
- centre CONNECTOR on the METER

**(b)** Make a 6.4 mm (1/4 in.) hole approximately 30.5 cm (12 in.) from the end of the EXHAUST DUCT that will be connected to the PROCESSOR.

**(c)** Insert the L TUBE into the hole you just made until the end of the TUBE is flush with the inside of the EXHAUST DUCT.

**(d)** Check that the negative pressure on the METER is correct.

- Do not connect the EXHAUST DUCT to the PROCESSOR.
- Hold the METER vertically.

**(e)** If necessary, adjust the distance between the EXHAUST DUCT for the building and the EXHAUST DUCT for the PROCESSOR until the negative pressure is correct. If you cannot obtain the correct negative pressure, the customer must install an AUXILIARY VENTILATION FAN.

**(f)** Remove the L TUBE from the EXHAUST DUCT and seal the remaining hole.

2. Connect the EXHAUST DUCT to the AIR EXHAUST on the PROCESSOR.

# CHAPTER 5

# CONNECTING THE XML 300 / XML 300 Plus TO MAINS.

## SAFETY PRECAUTIONS:

**Warning**

- The XML 300 / XML 300 Plus is not equipped with a DISCONNECTING DEVICE that allows disconnection of all poles from the MAINS.
- If the equipment is to be connected with a flexible LINE CORD and a PLUG, the WALL OUTLET should be located close to the equipment and easily accessible.
  - The PLUG must be provided by the customer.
  - Europe only: The PLUG must be in compliance with the CEELEC requirements.
  - All others: Follow your local and national electrical requirements.
- If the XML 300 / XML 300 Plus is to be hard wired to the MAINS an easy accessible LOCKING TYPE MAINS CIRCUIT BREAKER / MAINS SWITCH has to be installed to the MAINS.
  - An external LOCKING TYPE MAINS CIRCUIT BREAKER / MAINS SWITCH which disconnects all phases and neutral (L1/L2/L3/N) must be installed due to UL / CSA / EN / IEC requirements.
  - For the rating and the number of poles of the MAINS CIRCUIT BREAKER / MAINS SWITCH see chart on next page.
  - The LOCKING TYPE MAINS CIRCUIT BREAKER / MAINS SWITCH must comply with local and national electrical requirements.
  - The LOCKING TYPE MAINS CIRCUIT BREAKER / MAINS SWITCH must be provided by the customer.

## ML300 with SN 3381, 3382, 3383, 3384, 3385

**Note**

When setting up TRANSFORMER T1 of the POWER SUPPLY to the correct line voltage, follow the instructions for the XML300 PLUS TRANSFORMER T1 (grey TERMINAL BLOCK). These 5 XML300 are already equipped with the ML300 Plus TRANSFORMER.

# INSTALLATIONS OUTSIDE US and CANADA

**Note**

Due to safety regulations, the selected line voltage must be shown on the ML300 Plus DATA PLATE and in the OPERATING INSTRUCTIONS. The No. 4 on the TERMINAL BLOCK X5 of the POWER SUPPLY must be replaced with “N” (N = Neutral).

1. Take the self adhesive LABEL with the selected line voltage and stick it into the indicated field on the DATA PLATE.

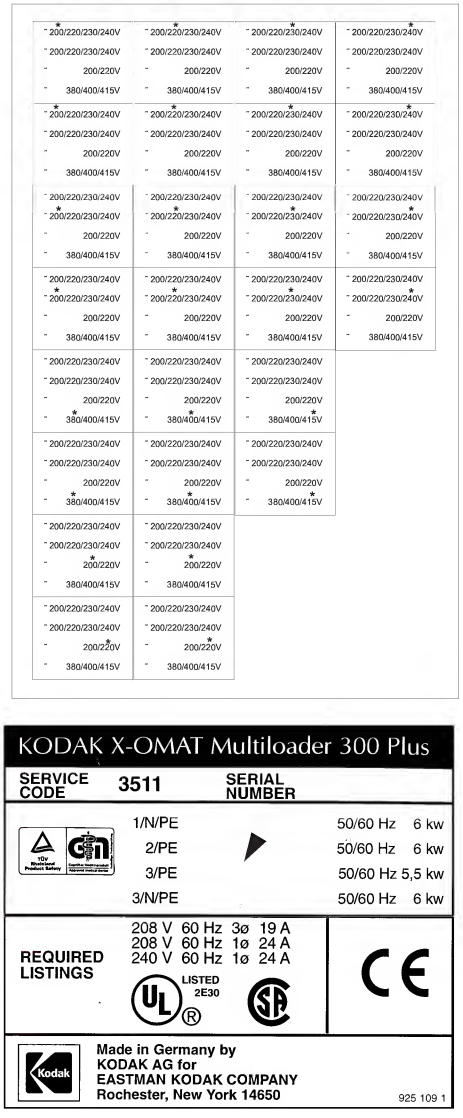



figure 5-1

2. Take the second LABEL with the selected line voltage and stick it into the provided space in section SPECIFICATIONS of the OPERATING INSTRUCTIONS.

3. Use a small SCREWDRIVER and take out the NUMBER STRIP (with numbers 1 to 6) of TERMINAL BLOCK X5 in the POWER SUPPLY.

4. Cut out number 4, insert the strip 1 to 3 again, add the “N” from the installation kit and then insert the strip 5 to 6.

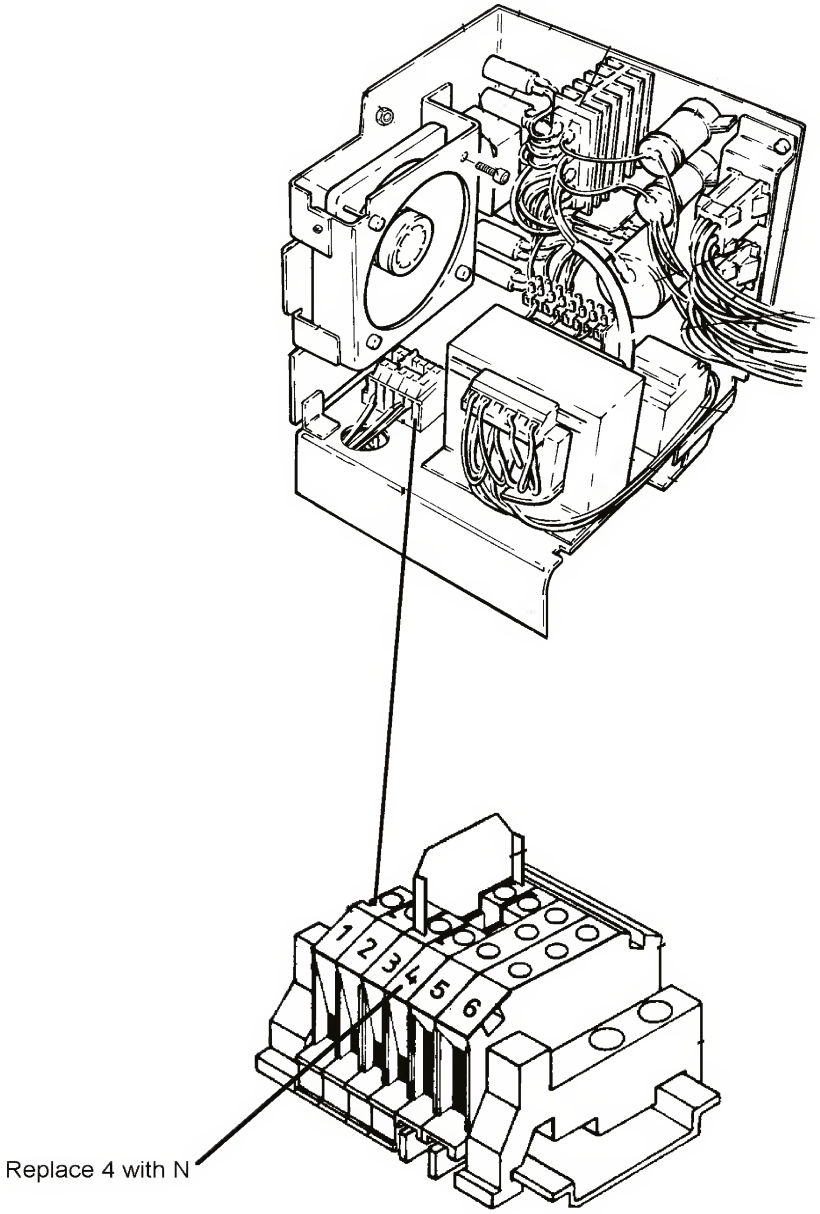



figure 5-2

# LINE VOLTAGES

**Caution**

For all services a GROUND WIRE (N = Neutral) must be provided.

| NOTE | SYSTEM MAINS (V) | FREQUENCY(Hz) | PHASES | CURRENT(A) | SERVICE WIRES | Mains Circuit Breaker | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | A/Phase Europe | A/Phase US | POLES |
| 1 | 200 | 50 / 60 | 1 / 2 | 24 | 2 / 3 | 32 | 30 | 2 |
| 1 | 220 | 50 / 60 | 1 / 2 | 24 | 2 / 3 | 32 | 30 | 2 |
| 1 | 230 | 50 / 60 | 1 / 2 | 24 | 2 / 3 | 32 | 30 | 2 |
| 1 | 240 | 50 / 60 | 1 / 2 | 24 | 2 / 3 | 32 | 30 | 2 |
| 2 | 200 | 50 / 60 | 3 | 19 | 3 | 32 | 20 | 3 |
| 2 | 127/220 | 50 / 60 | 3 | 19 | 4 | 32 | 20 | 4 |
| 3 | 127/220 | 50 / 60 | 3 | 24 | 3 | 32 | 30 | 3 |
| 4 | 220/380 | 50 / 60 | 3 | 11 | 4 | 16 | 20 | 4 |
| 4 | 230/400 | 50 / 60 | 3 | 11 | 4 | 16 | 20 | 4 |
| 4 | 240/415 | 50 / 60 | 3 | 11 | 4 | 16 | 20 | 4 |
| 2 | 120/208 | 60 | 3 | 19 | 4 | 32 | 20 | 4 |
| 3 | 120/208 | 60 | 3 | 24 | 3 | 32 | 30 | 3 |

| NOTE | DESCRIPTION |
|---|---|
| 1 | L1, N, / L1, L2 used in this configuration |
| 2 | L1, L2, L3 used in this configuration |
| 3 | L1, L2 used in this configuration |
| 4 | L1, L2, L3 and N used in this configuration |

## HOW TO CONNECT WIRES OF THE XML 300 / XML 300 Plus AND THE 270RA / 3000RA PROCESSOR

**Warning**

Ensure that the XML 300 / XML 300 Plus is disconnected from the mains when changing the TRANSFORMER wiring, to avoid an electrical shock.

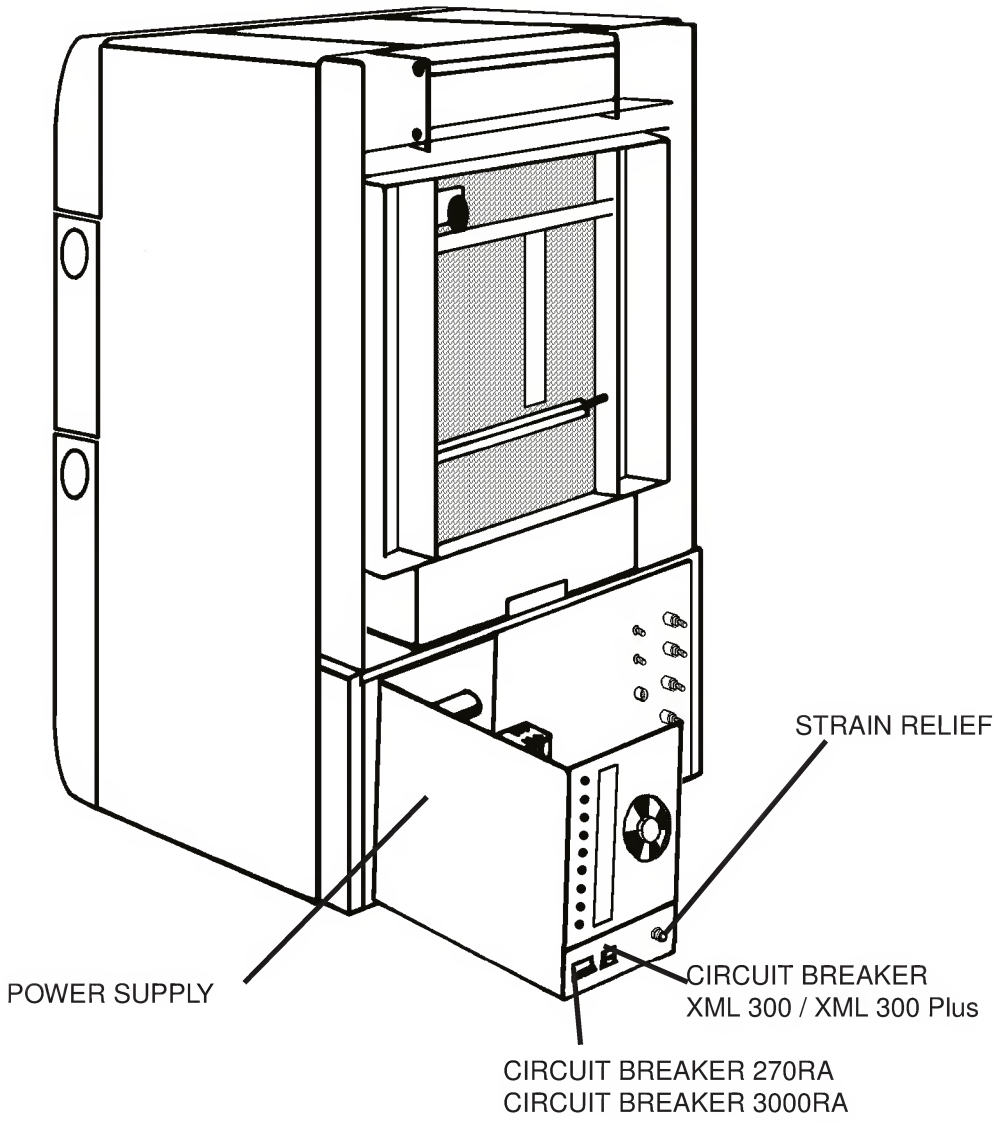



figure 5-3

1. Pull out the POWER SUPPLY.

2. Remove the two SCREWS on the MOUNTING of the FAN. Move out the FAN to have access to the TERMINAL BLOCK. See figure 2-4.

3. If the XML 300 / XML 300 Plus is to be hard wired, install the parts shown below to replace the STRAIN RELIEF. These parts are not supplied with the INSTALLATION KIT.

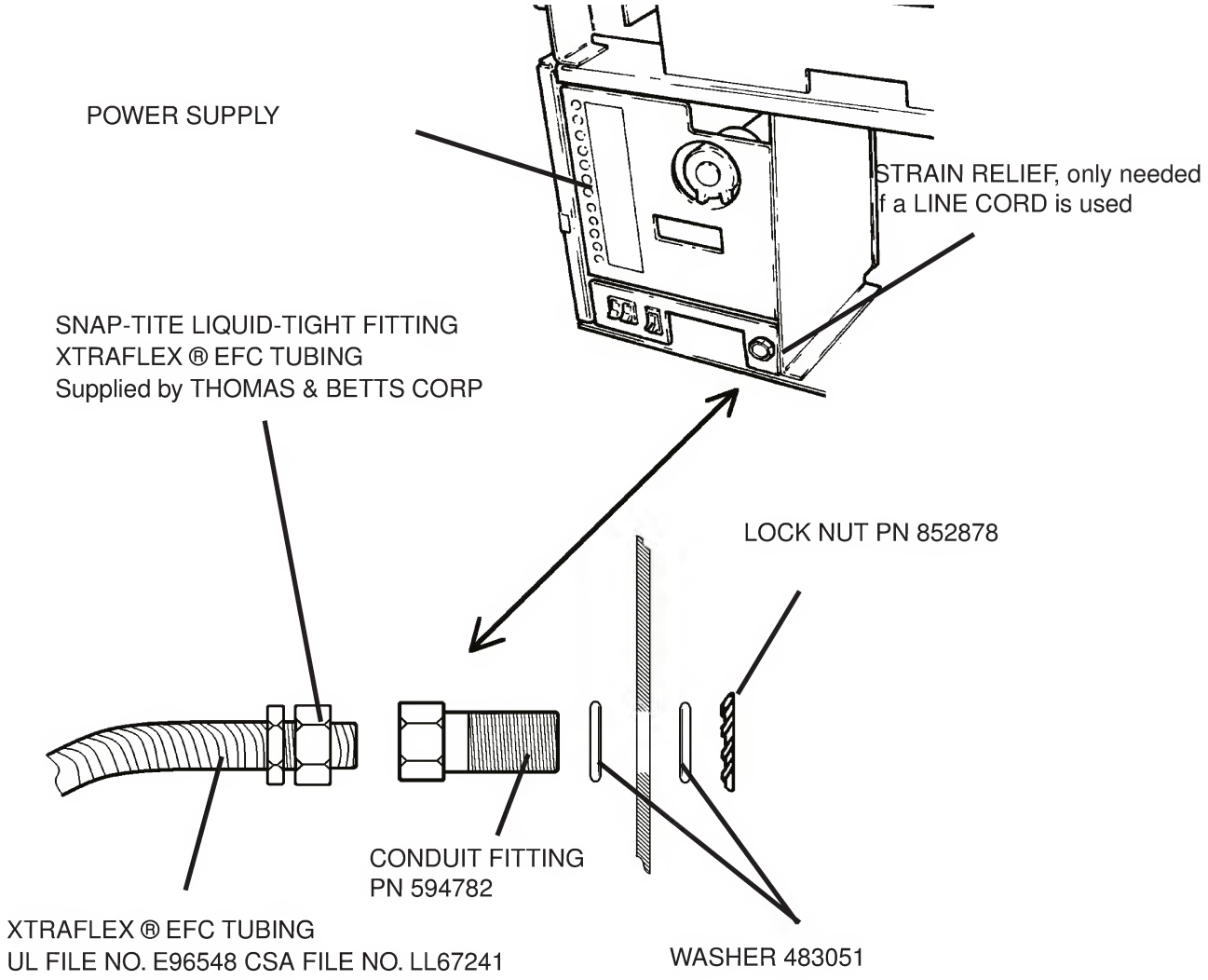

POWER SUPPLY
STRAIN RELIEF, only needed
f a LINE CORD is used
SNAP-TITE LIQUID-TIGHT FITTING
XTRAFLEX ® EFC TUBING
Supplied by THOMAS & BETTS CORP
LOCK NUT PN 852878
CONDUIT FITTING
PN 594782
XTRAFLEX ® EFC TUBING
UL FILE NO. E96548 CSA FILE NO. LL67241
WASHER 483051
Supplied by THOMAS & BETTS CORP

figure 5-4

4. If the XML 300 / XML 300 Plus is to be cord wired, install the correct STRAIN RELIEF according to the figure below.

## FOR EUROPE USE THE FOLLOWING CABLES:

Use HO5VV-F or HO7RN-F

- 3 x 4 $mm^2$ for 1/N/PE
- 3 x 2.5 $mm^2$ for 2/PE
- 4 x 1.5 $mm^2$ for 3/PE
- 5x 1.5 $mm^2$ for 3/N/PE

## FOR THE US AND CANADA USE THE FOLLOWING CABLES. THE PLUGS ARE VALID FOR CANADA ONLY.

| | |
|---|---|
| 3 x AWG 12 for 1P/240V (S,SO,ST,STO) | PLUG TYPE 6-30 |
| 4 x AWG 10 for 1P/208V (S,SO,ST,STO) | PLUG TYPE 18-30 |
| 5 x AWG 12 for 3P/208V (S,SO,ST,STO) | PLUG TYPE L21-30 |

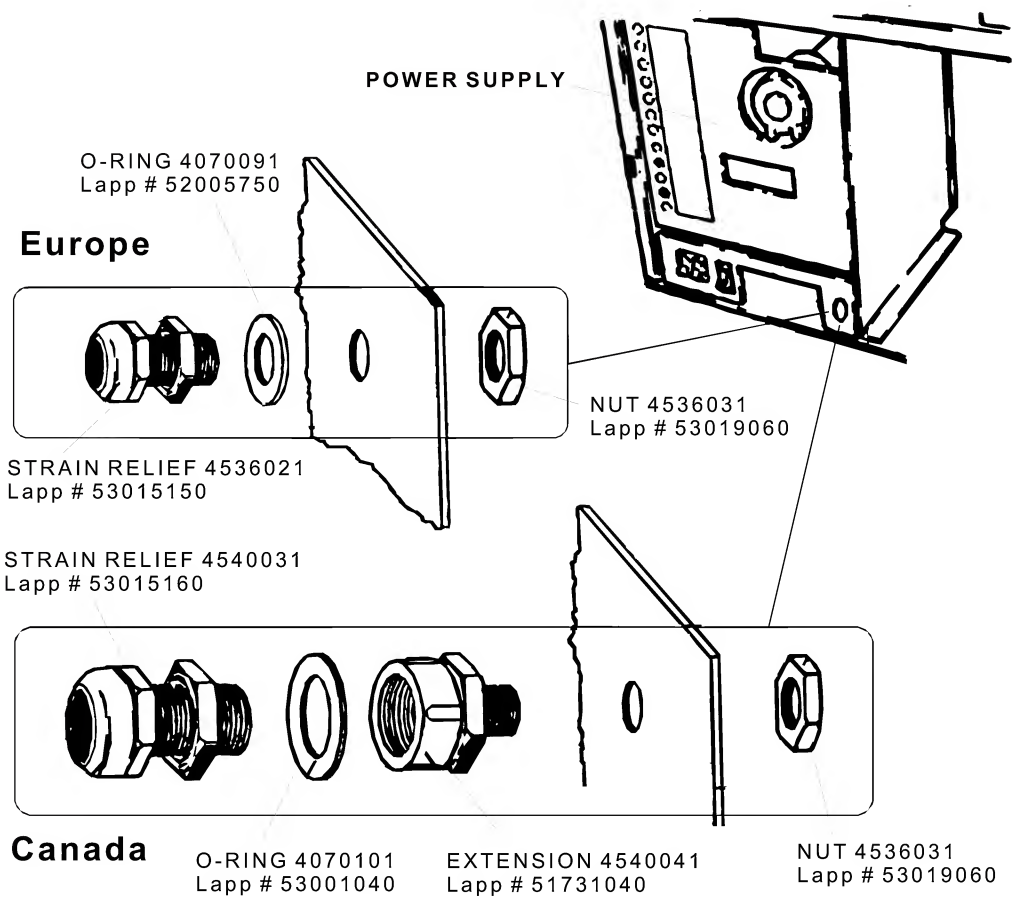



figure 5-5

## Warning

- For the US use the hard wired connection only.
- DO NOT CONNECT THE XML 300 / XML 300 Plus TO THE MAINS BEFORE THE WIRING IS COMPLETED ACCORDING TO THE FOLLOWING FIGURES !
- The WIRES in the POWER SUPPLY of the XML 300 / XML 300 Plus are labelled as indicated in the figures pages 5-9 to 5-31.

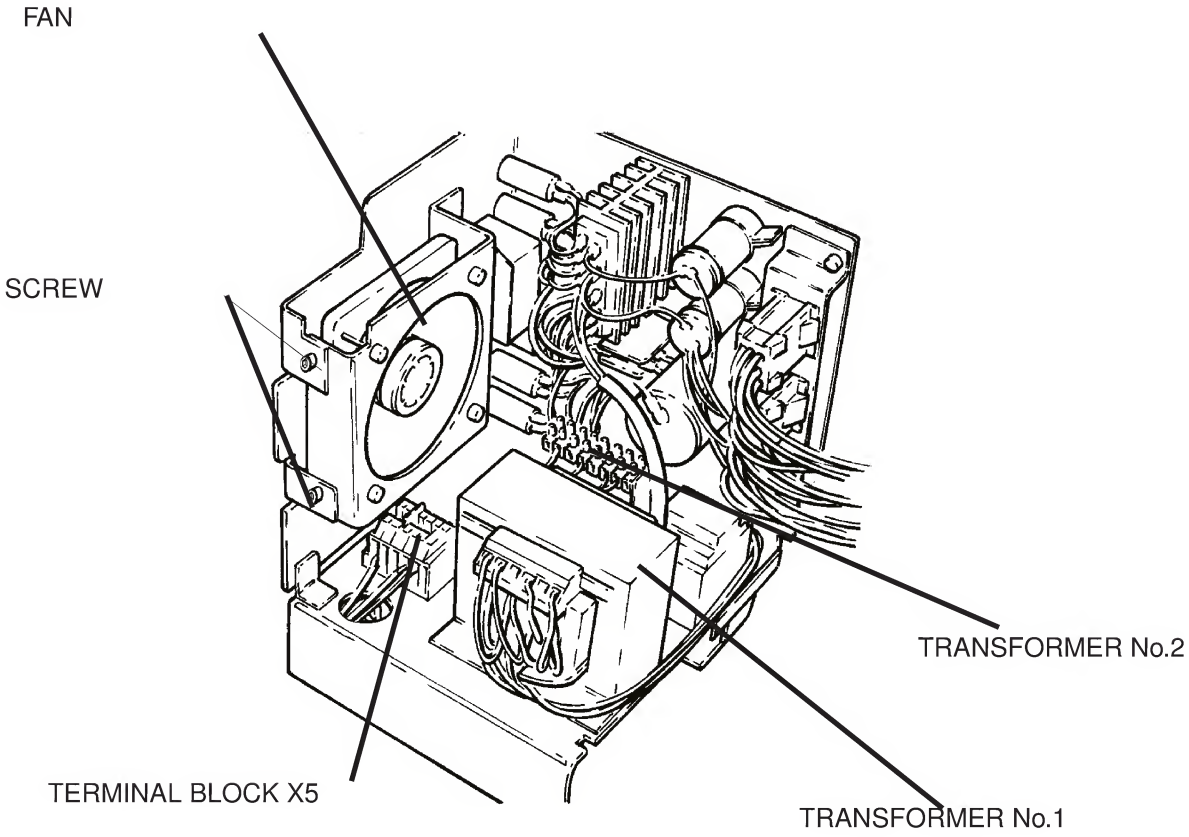



figure 5-6

5. Connect the wires at the TERMINAL BLOCK and the 2 TRANSFORMERS to suit your LINE VOLTAGE. See figures starting on page 5-8 for parts location and correct wiring.

## WIRING OF THE FILM PROCESSOR

6. Remove the SCREWS on the PLATE with the CONNECTORS for the TUBING at the REAR SIDE of the XML 300 / XML 300 Plus.

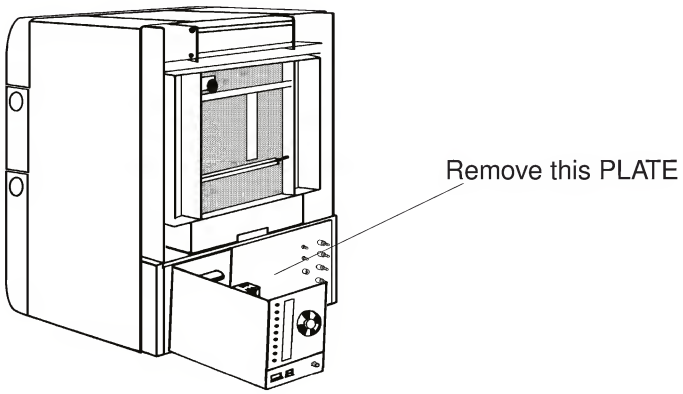



figure 5-7

7. Put the PLATE with the HOSES inside the CABINET to get access to the TERMINAL BLOCKS at the REAR SIDE of the FILM PROCESSOR.

**Caution**

AVOID ANY STRESS ON THE ELBOWS WHEN YOU FULLY PULL OUT THE PROCESSOR TO GET ACCESS TO THE TERMINAL BLOCKS AT THE REAR OF THE PROCESSOR. THE ELBOWS MIGHT CRACK OTHERWISE.

8. Make the wire connections at the TERMINAL BLOCKS of the PROCESSOR according to the figures page 5-9 to 5-41.

9. Install the PLATE with HOSES.

10. Install the POWER SUPPLY in the XML 300 / XML 300 Plus.

11. Check that the CIRCUIT BREAKER for the FILM PROCESSOR is switched **off**.

12. Install all PANELS.

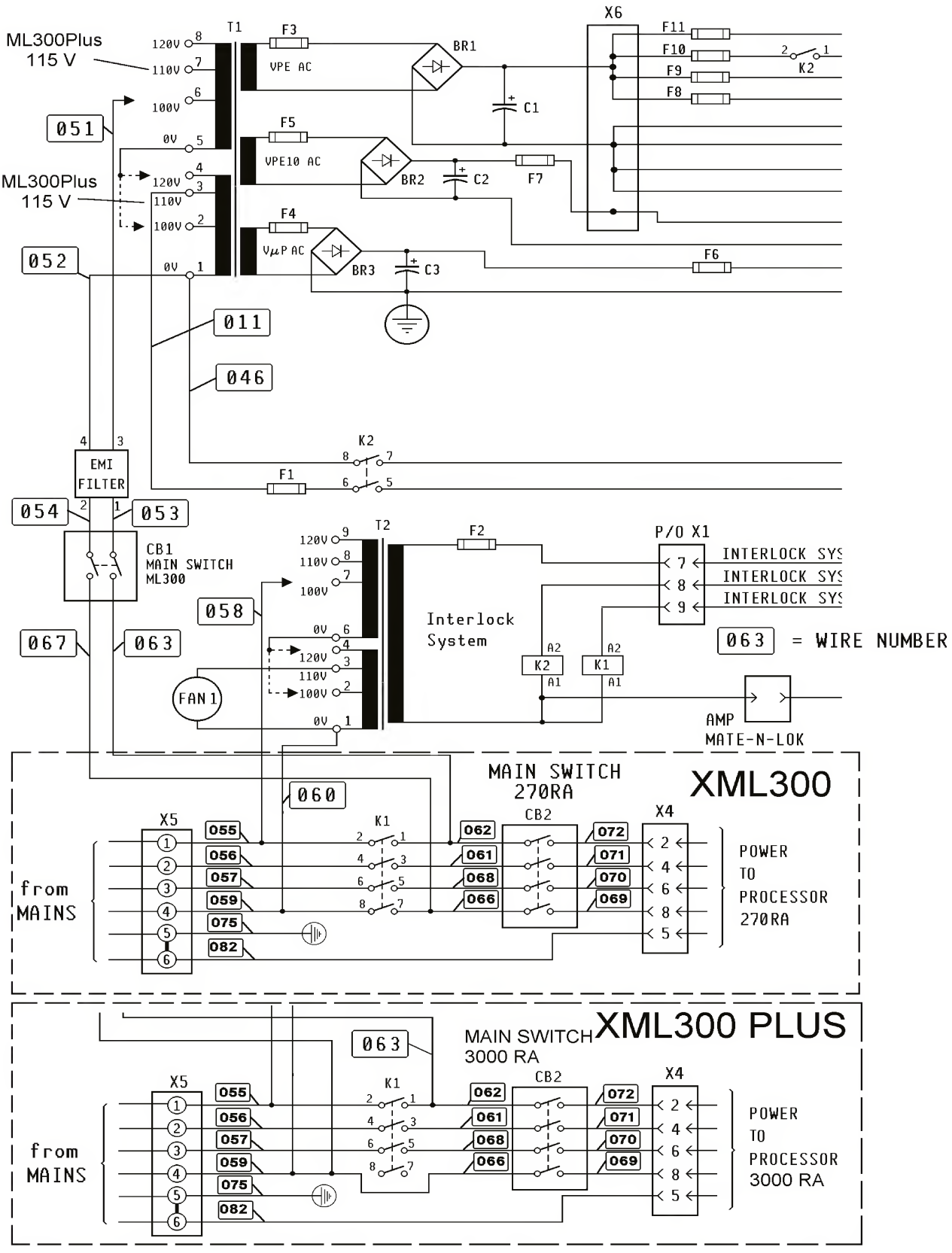

ML300Plus
115 V
120V
110V
100V
0V
T1
F3
VPE AC
BR1
C1
X6
F11
F10
F9
F8
K2
051
F5
VPE10 AC
BR2
C2
F7
ML300Plus
115 V
F4
VμP AC
BR3
C3
F6
052
011
046
EMI
FILTER
K2
F1
054
053
CB1
MAIN SWITCH
ML300
T2
F2
P/O X1
INTERLOCK SYS
INTERLOCK SYS
INTERLOCK SYS
058
Interlock
System
063 = WIRE NUMBER
067
063
FAN 1
A2
A1
AMP
MATE-N-LOK
MAIN SWITCH
270RA
XML300
060
X5
K1
CB2
X4
055
056
057
059
075
082
062
061
068
066
072
071
070
069
POWER
TO
PROCESSOR
270RA
from
MAINS
XML300 PLUS
063
MAIN SWITCH
3000 RA
POWER
TO
PROCESSOR
3000 RA

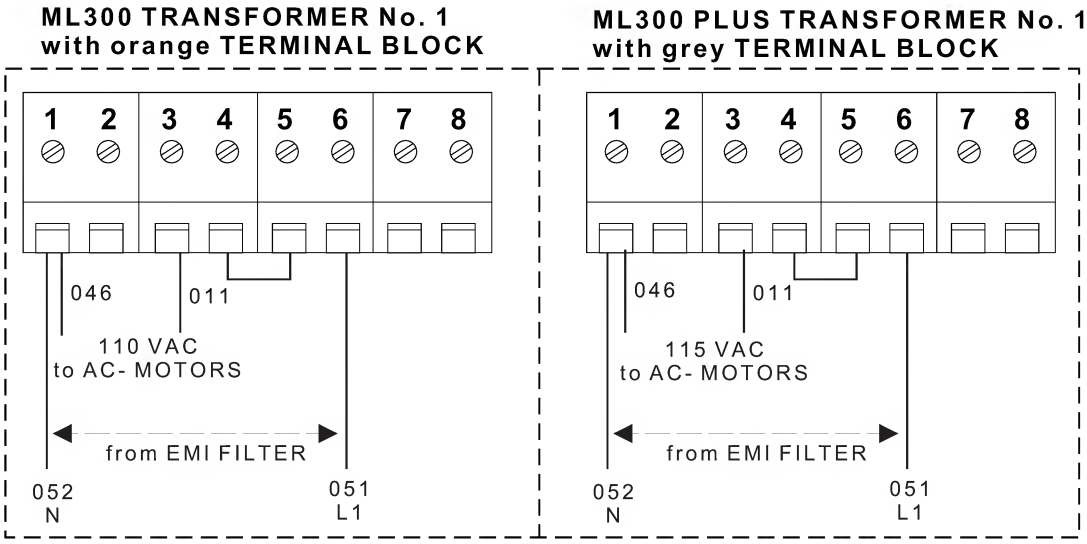
figure 5-8

**Note**

For the XML 300 Plus a different TRANSFORMER T1 is used. The TERMINAL BLOCK for the XML 300 Plus T1 TRANSFORMER is grey and the TERMINAL BLOCK for the XML 300 T1 TRANSFORMER is orange.

## WIRING FOR 220/380V (50/60 Hz) 3 PHASES

### ML300 / ML300 PLUS POWER SUPPLY



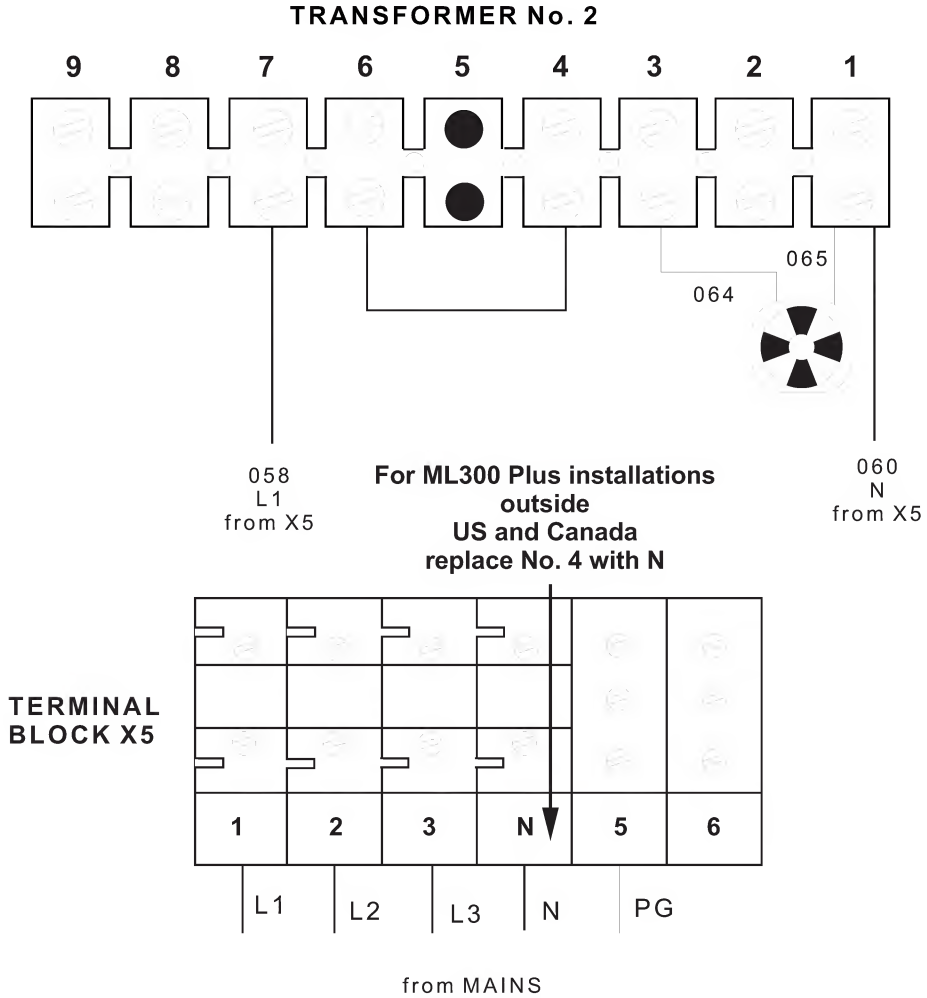




figure 5-9

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

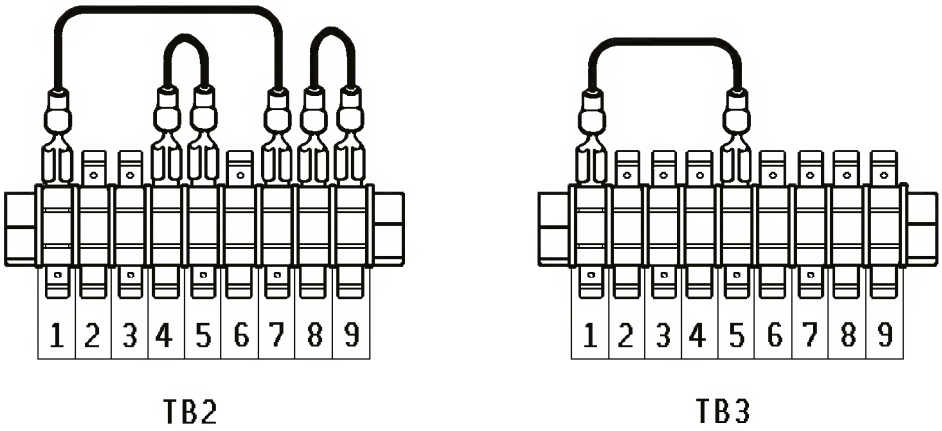
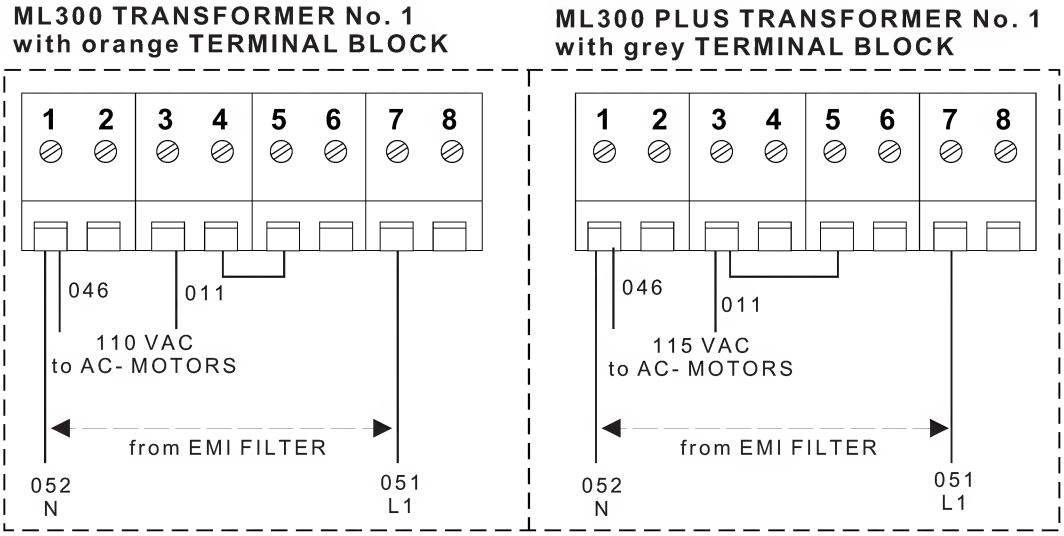



figure 5-10

## WIRING FOR 230/400 V (50/60 Hz) 3 PHASES

### ML300 / ML300 PLUS POWER SUPPLY



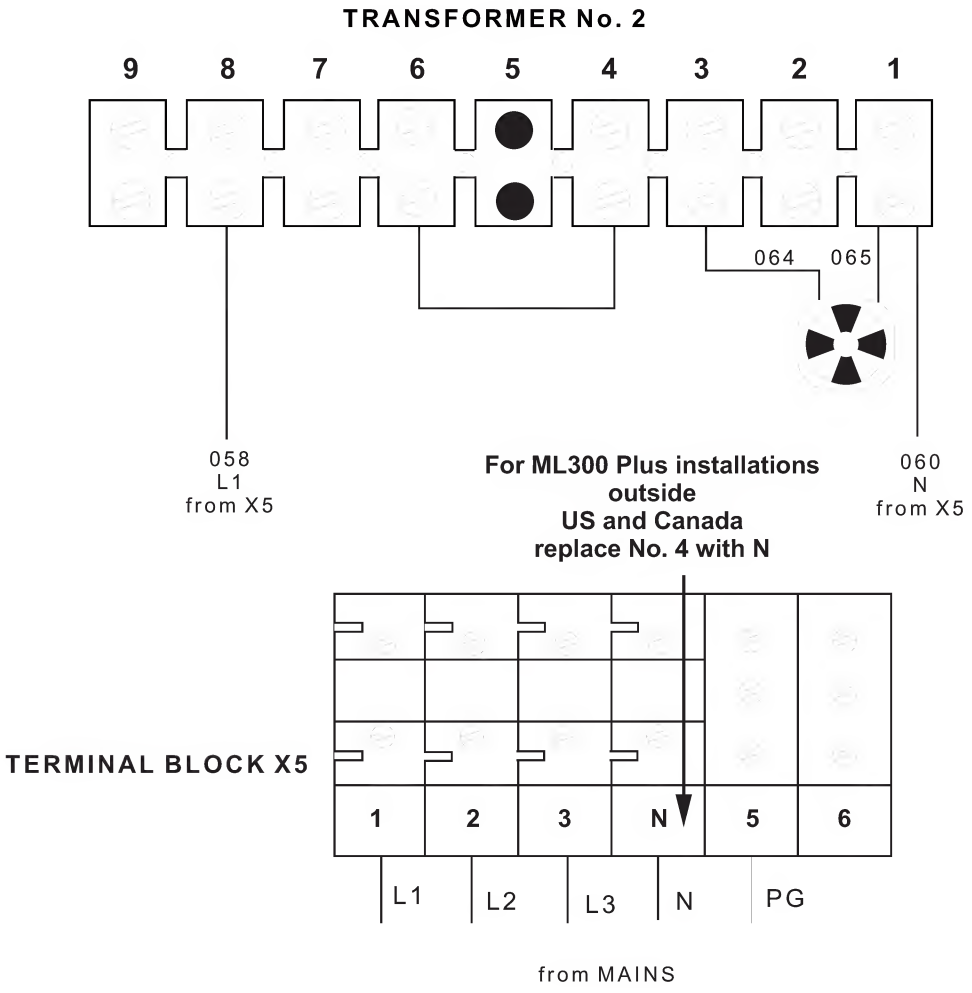




figure 5-11

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

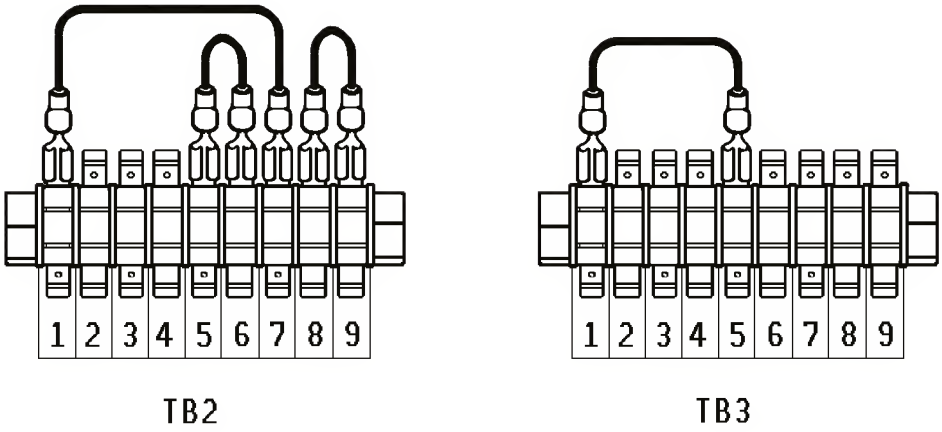
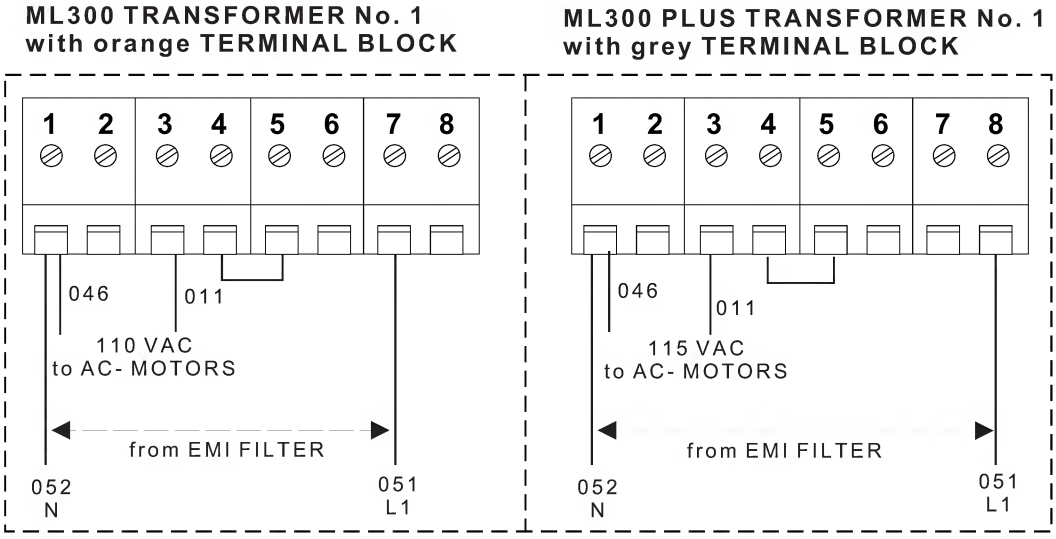



figure 5-12

## WIRING FOR 240/415 V (50/60 Hz) 3 PHASES

### ML300 / ML300 PLUS POWER SUPPLY



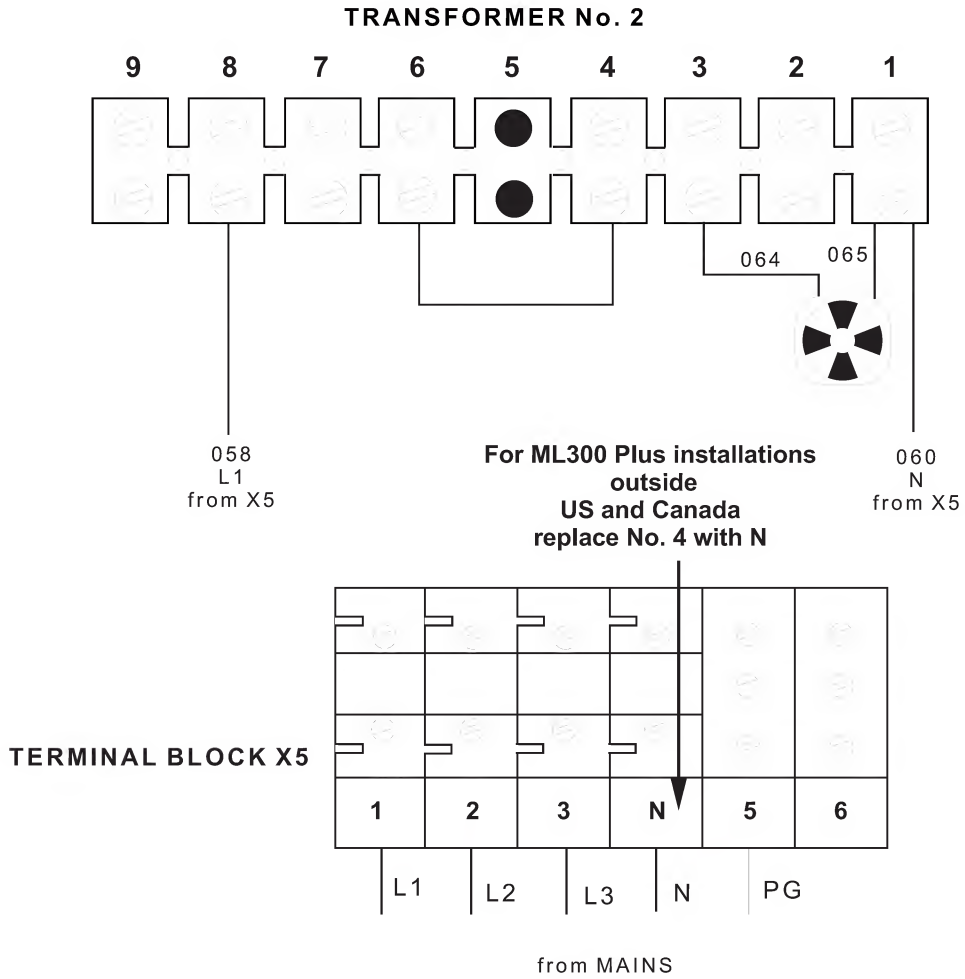




figure 5-13

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

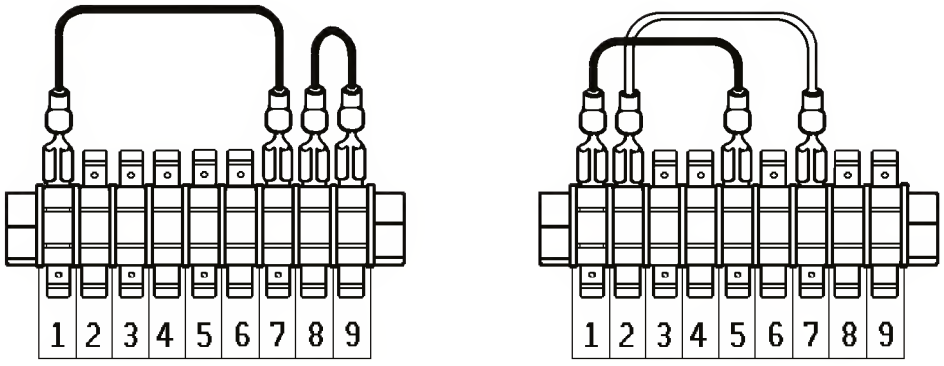



figure 5-14

## WIRING FOR 240 V (50/60 Hz) 2 PHASES

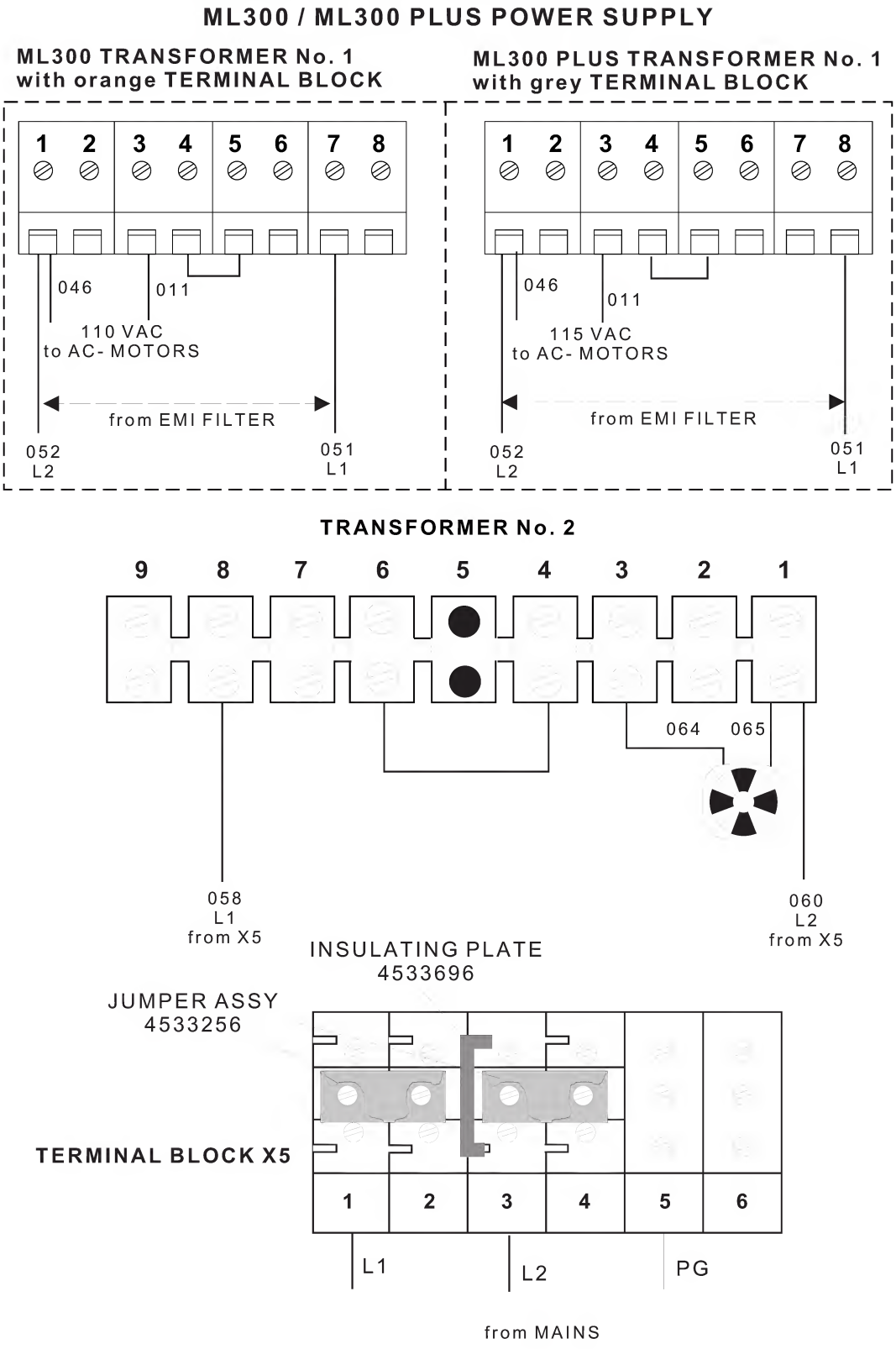



figure 5-15

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

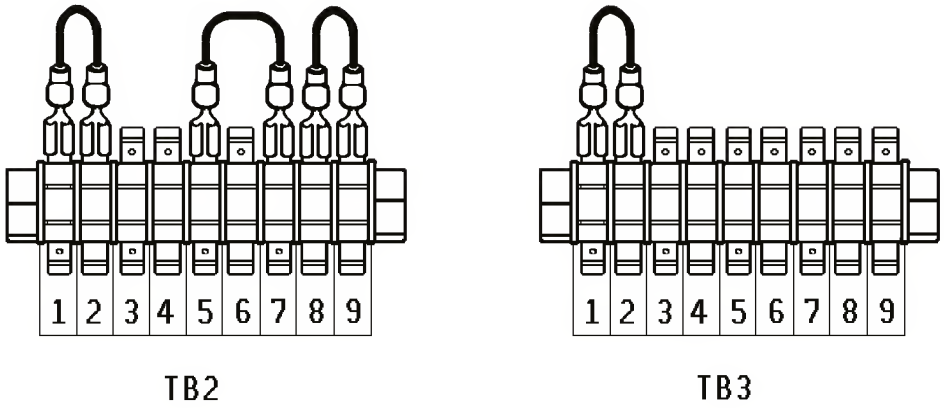



figure 5-16

## WIRING FOR 240 V (50/60 Hz) 1 PHASE

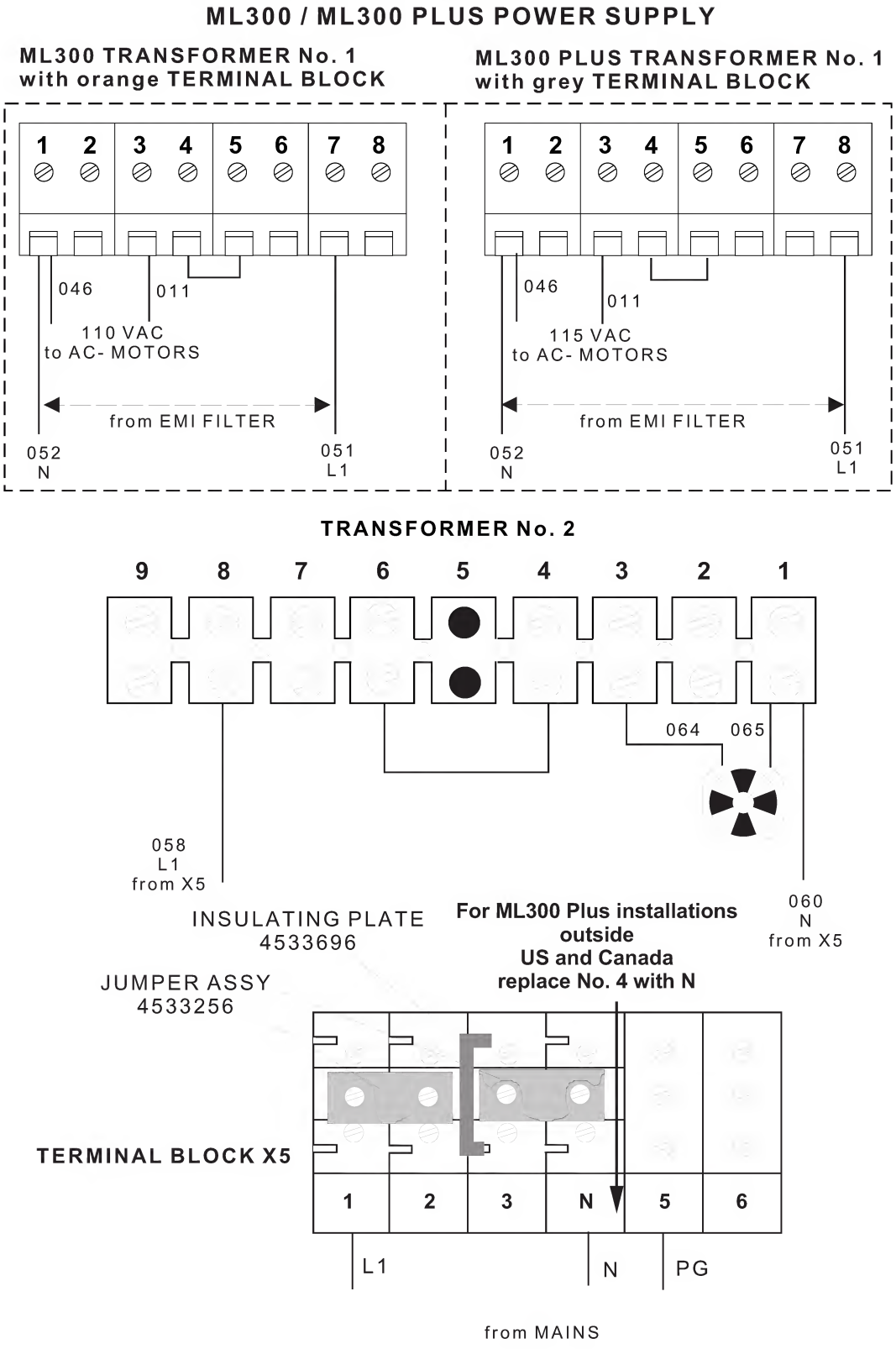



figure 5-17

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

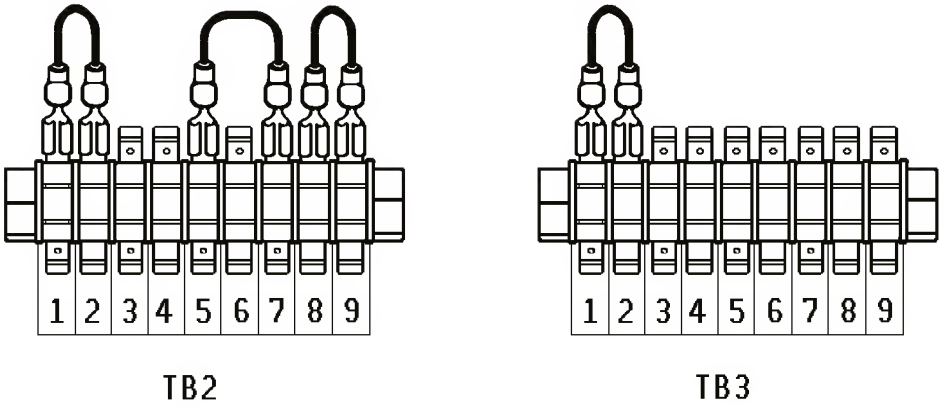



figure 5-18

## WIRING FOR 230 V (50/60 Hz) 2 PHASES

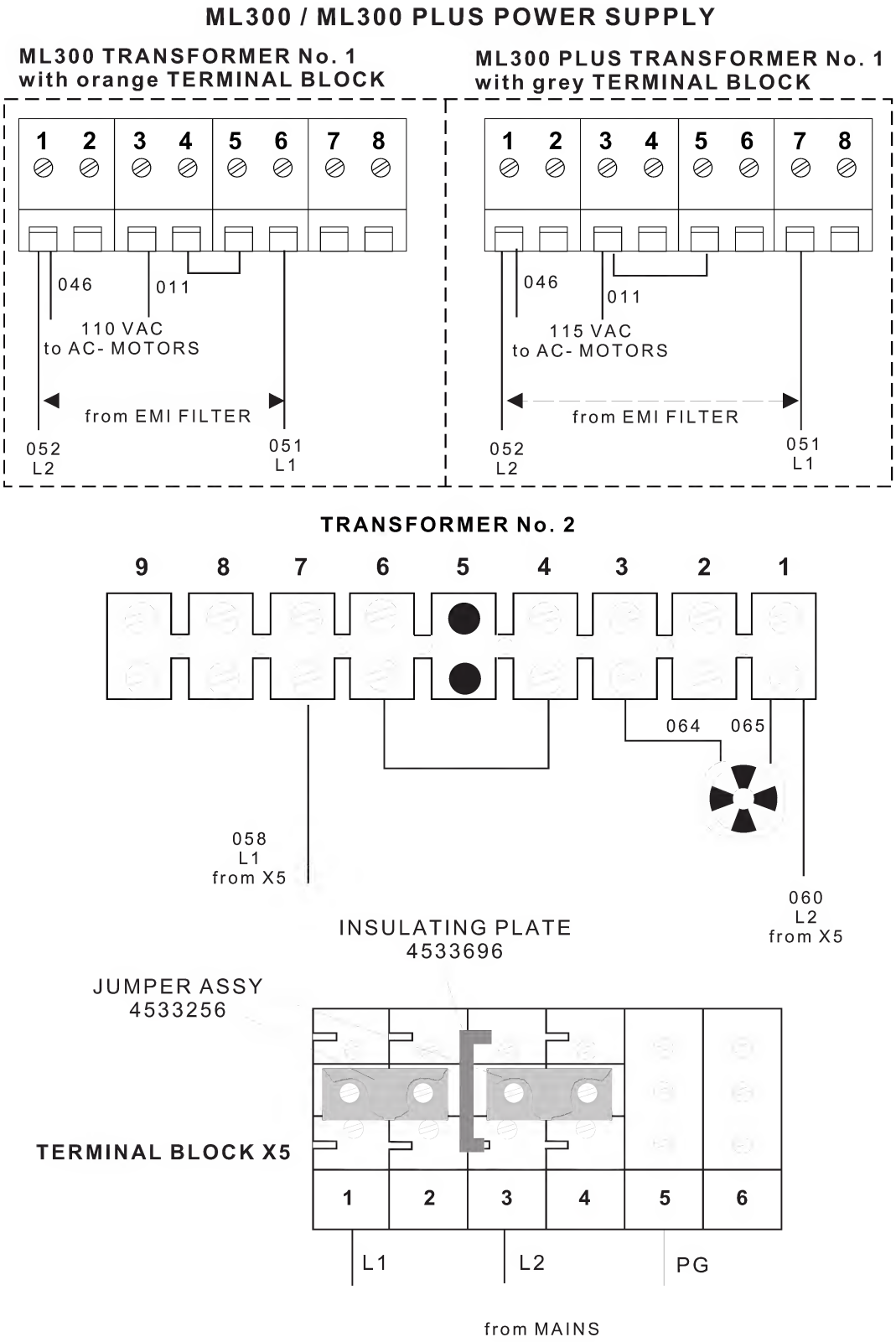



figure 5-19

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

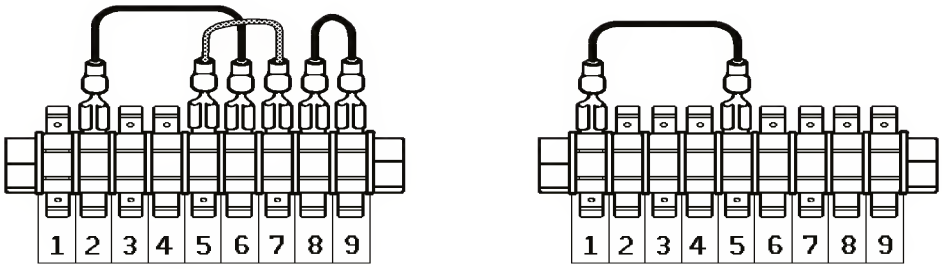



figure 5-20

## WIRING FOR 230 V (50/60 Hz) 1 PHASE

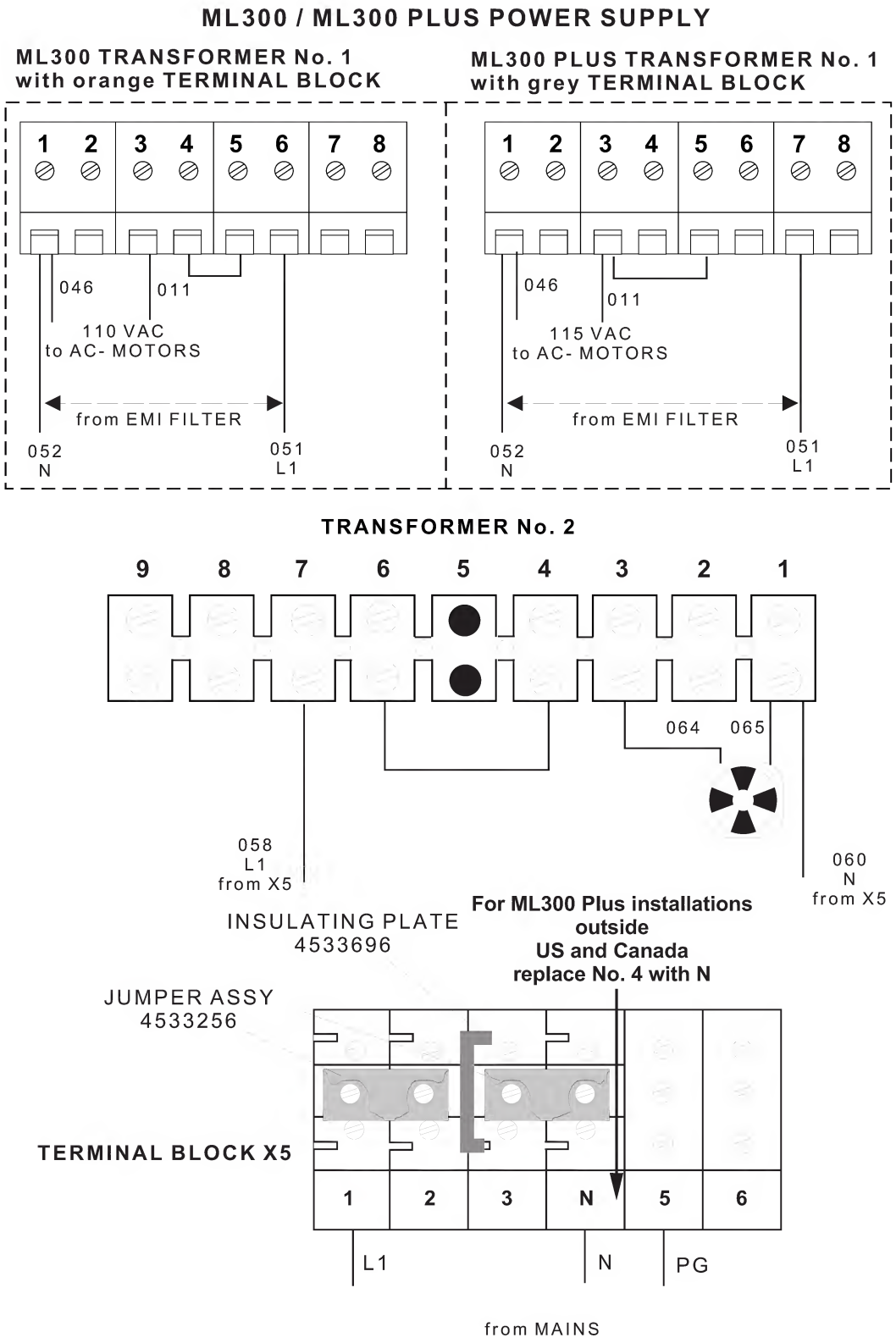



figure 5-21

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

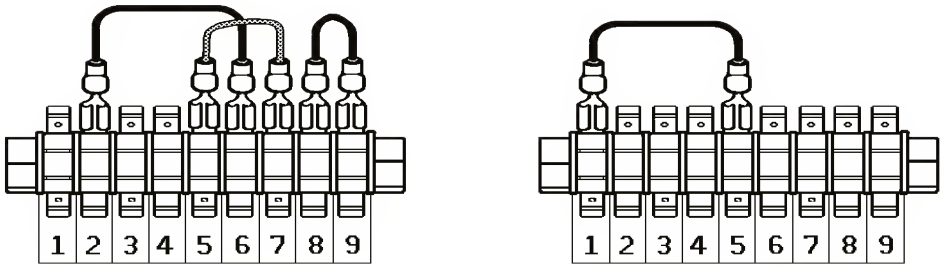



figure 5-22

## WIRING FOR 127/220 V (50/60 Hz) 3 PHASES

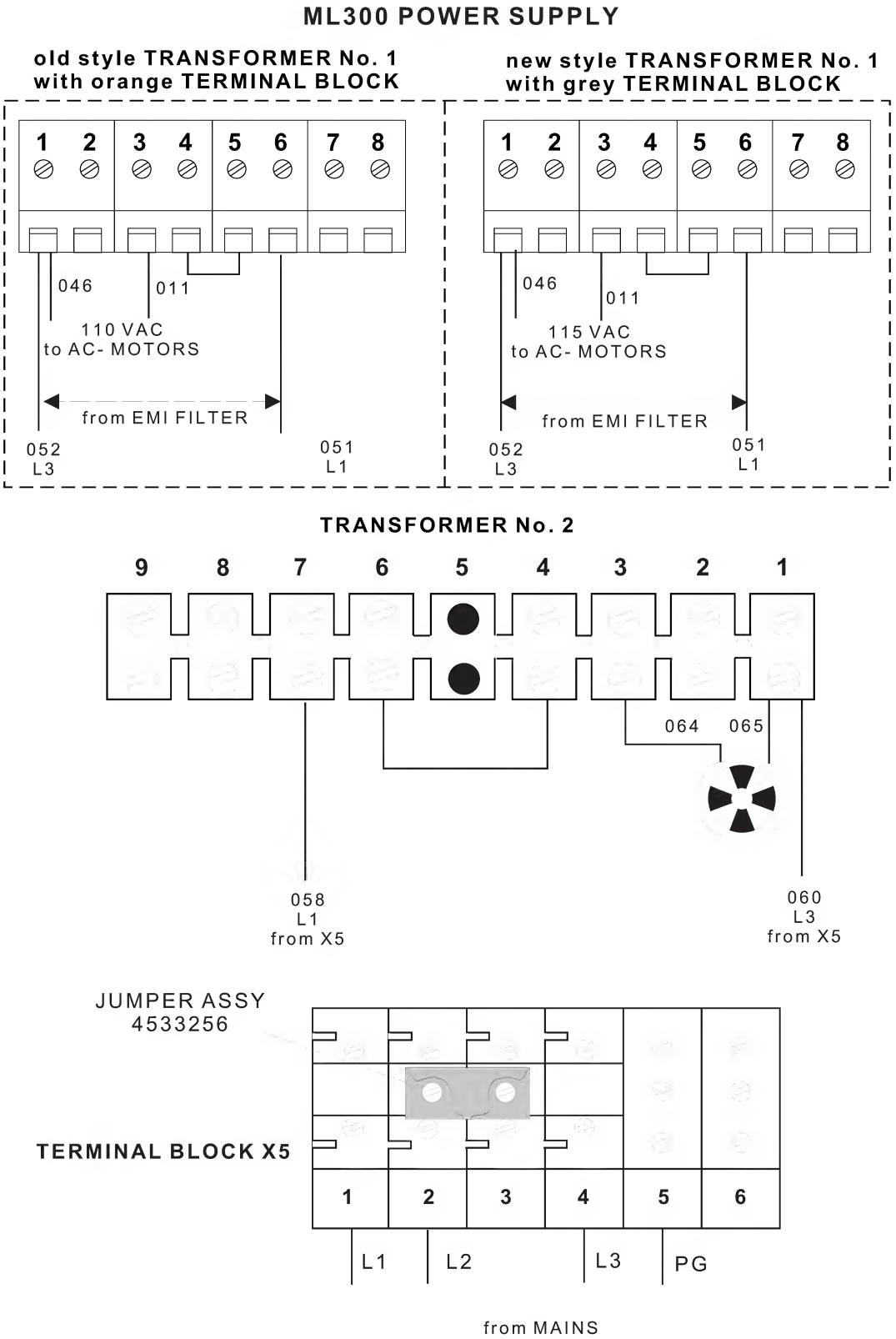



figure 5-23

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

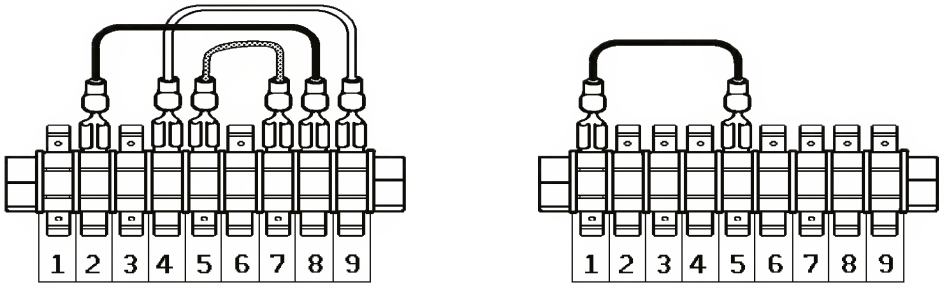
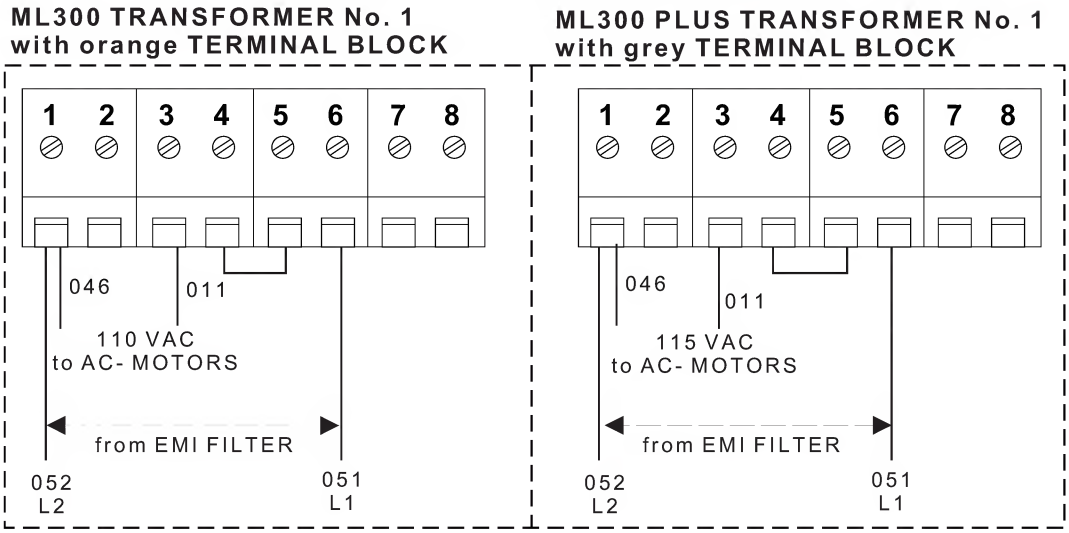



figure 5-24

## WIRING FOR 220 V (50/60 Hz) 2 PHASES

### ML300 / ML300 PLUS POWER SUPPLY




### TRANSFORMER No. 2

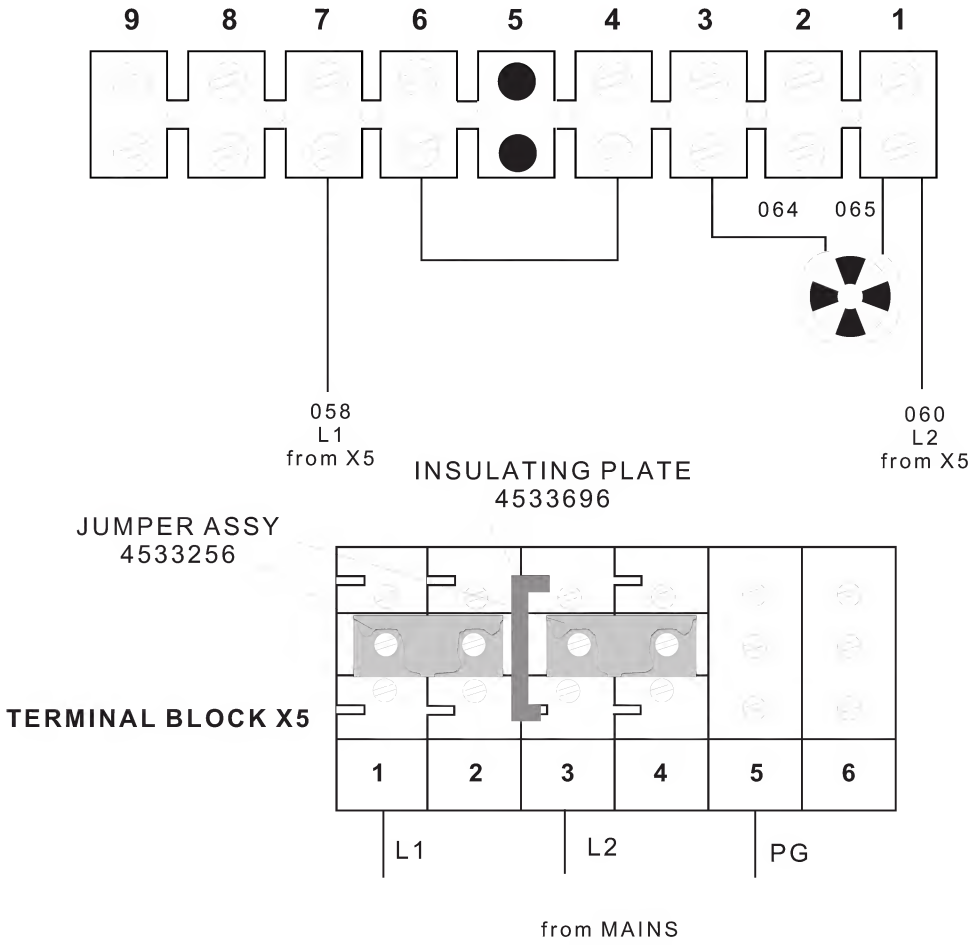



figure 5-25

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

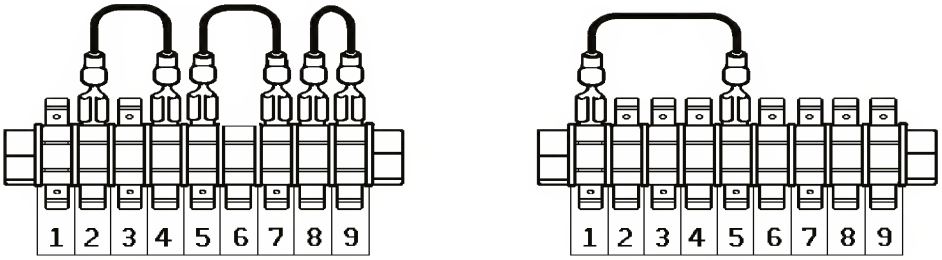



figure 5-26

## WIRING FOR 127/220 V (60 Hz) 3 PHASES (only L1+L2 used)

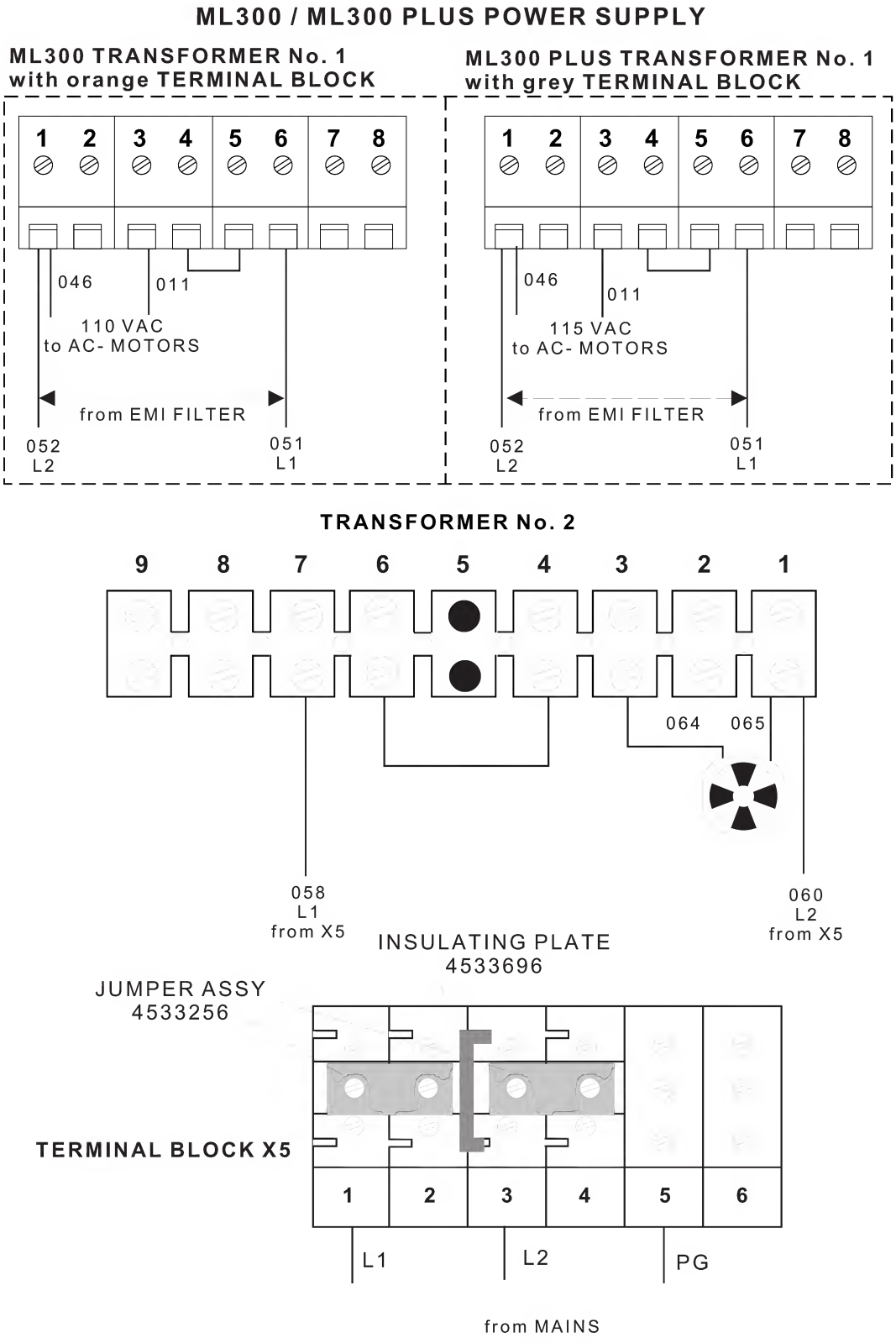



figure 5-27

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

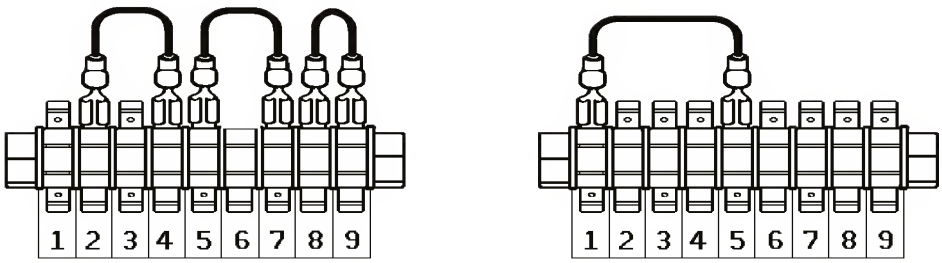



figure 5-28

## WIRING FOR 220 V (50/60 Hz) 1 PHASE

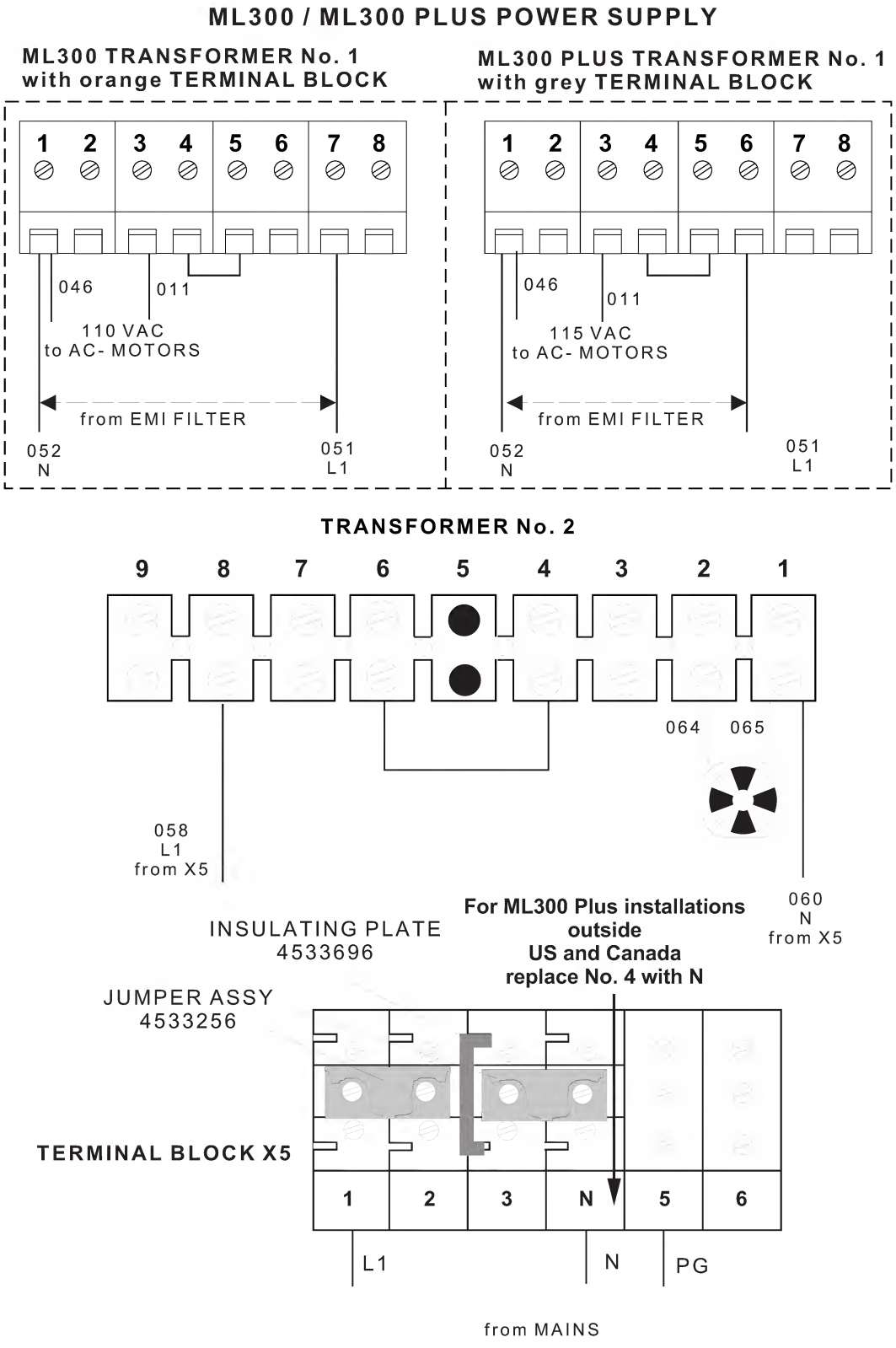



figure 5-29

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

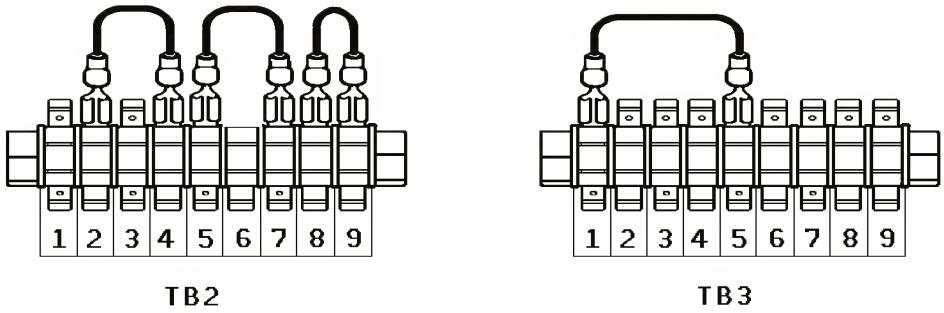



figure 5-30

## WIRING FOR 200 V (60 Hz) 3 PHASES

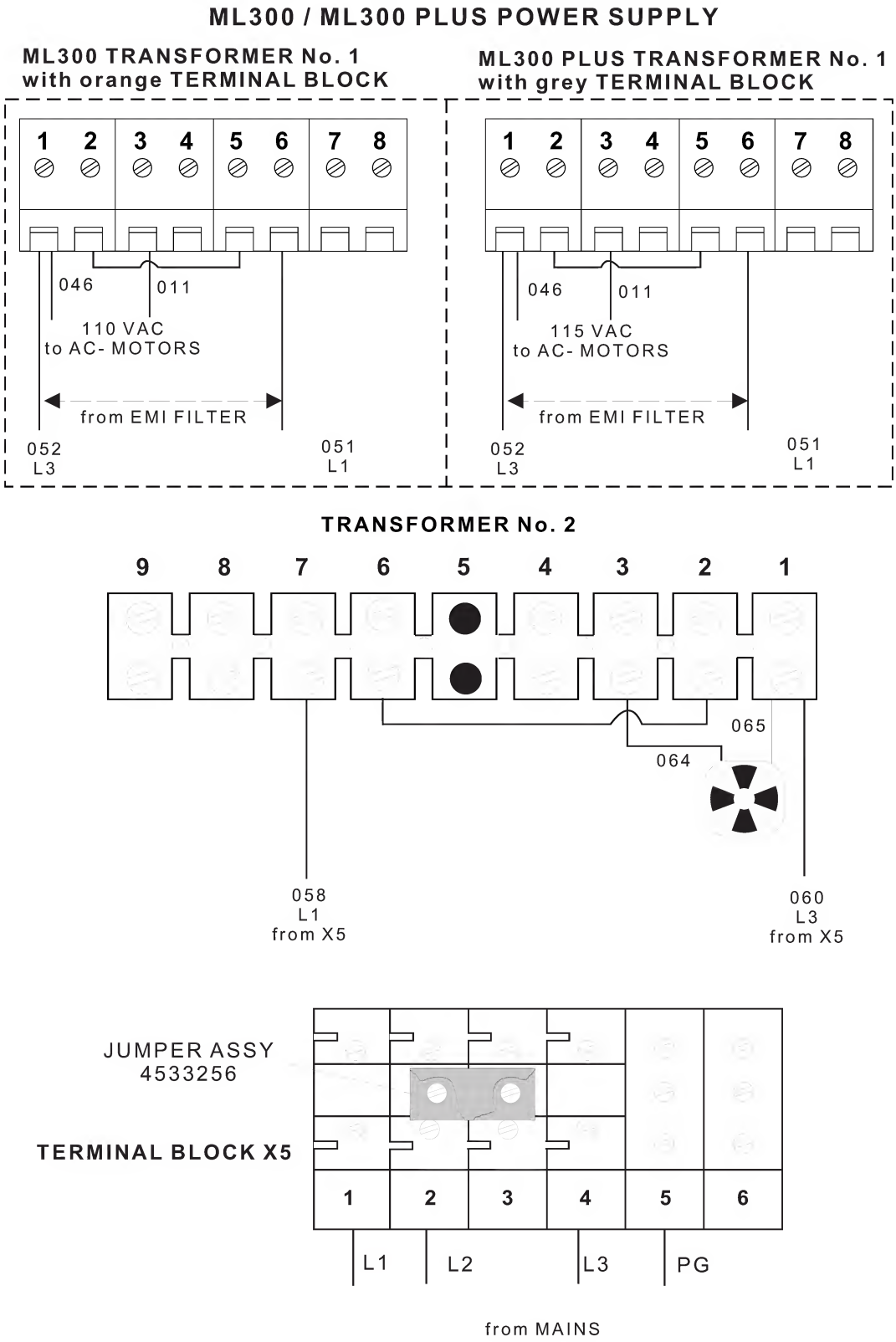



figure 5-31

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

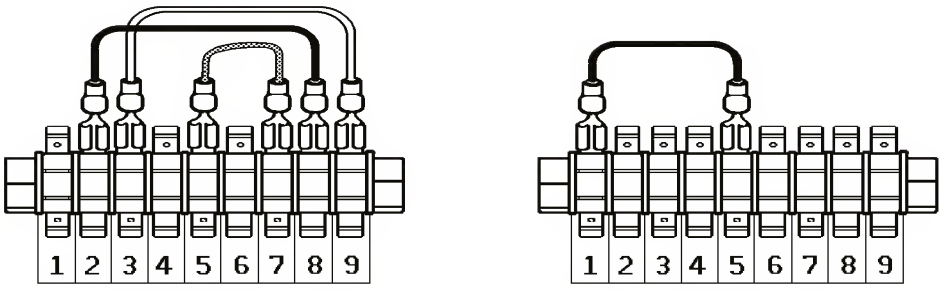



figure 5-32

## WIRING FOR 200 V (50/60 Hz) 2 PHASES

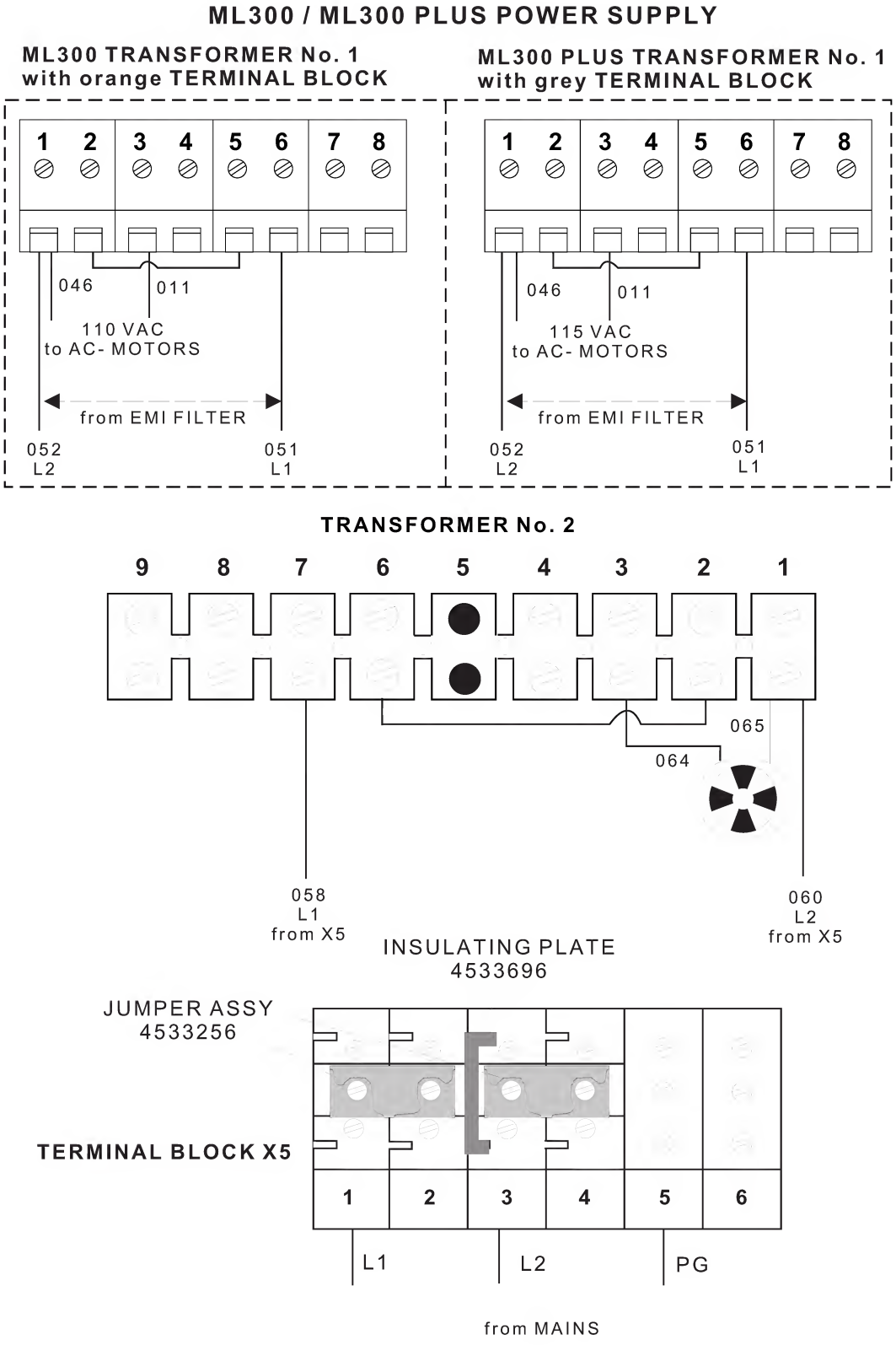



figure 5-33

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

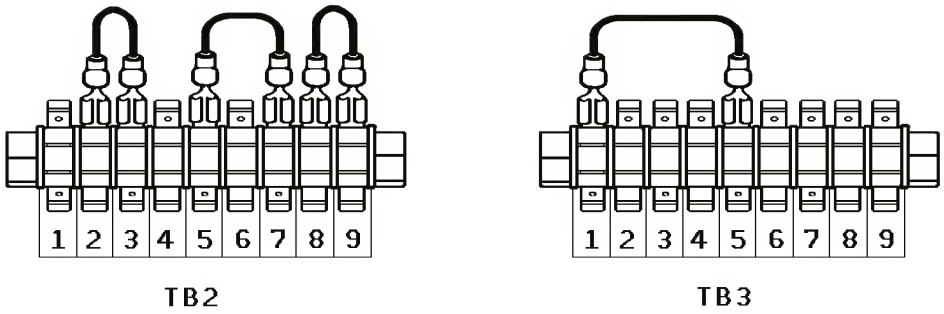



figure 5-34

## WIRING FOR 200 V (50/60 Hz) 1 PHASE

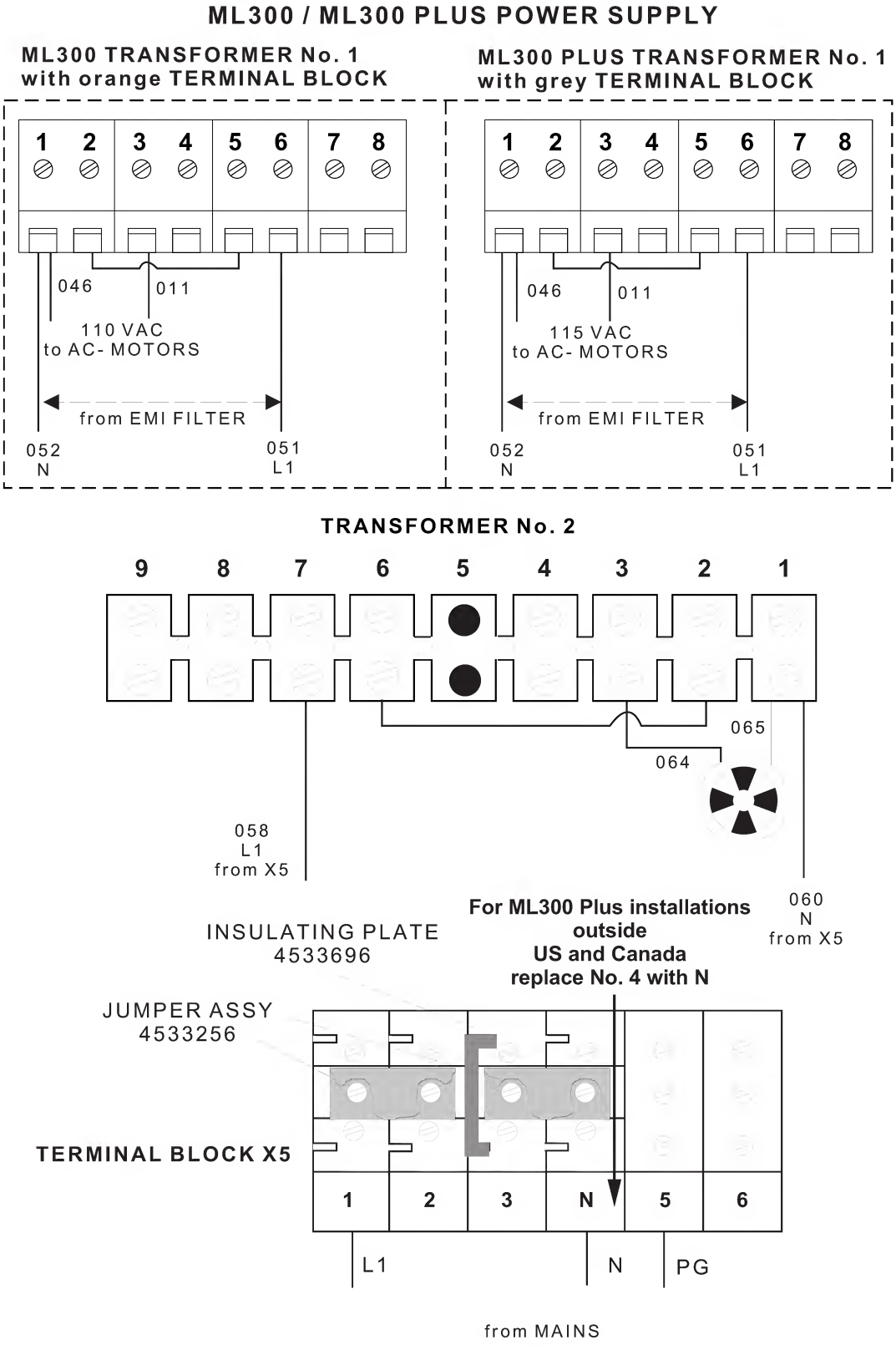



figure 5-35

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

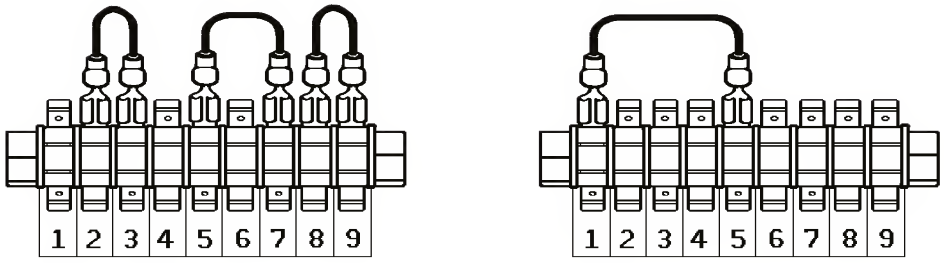



figure 5-36

## WIRING FOR 120/208 V (60 Hz) 3 PHASES

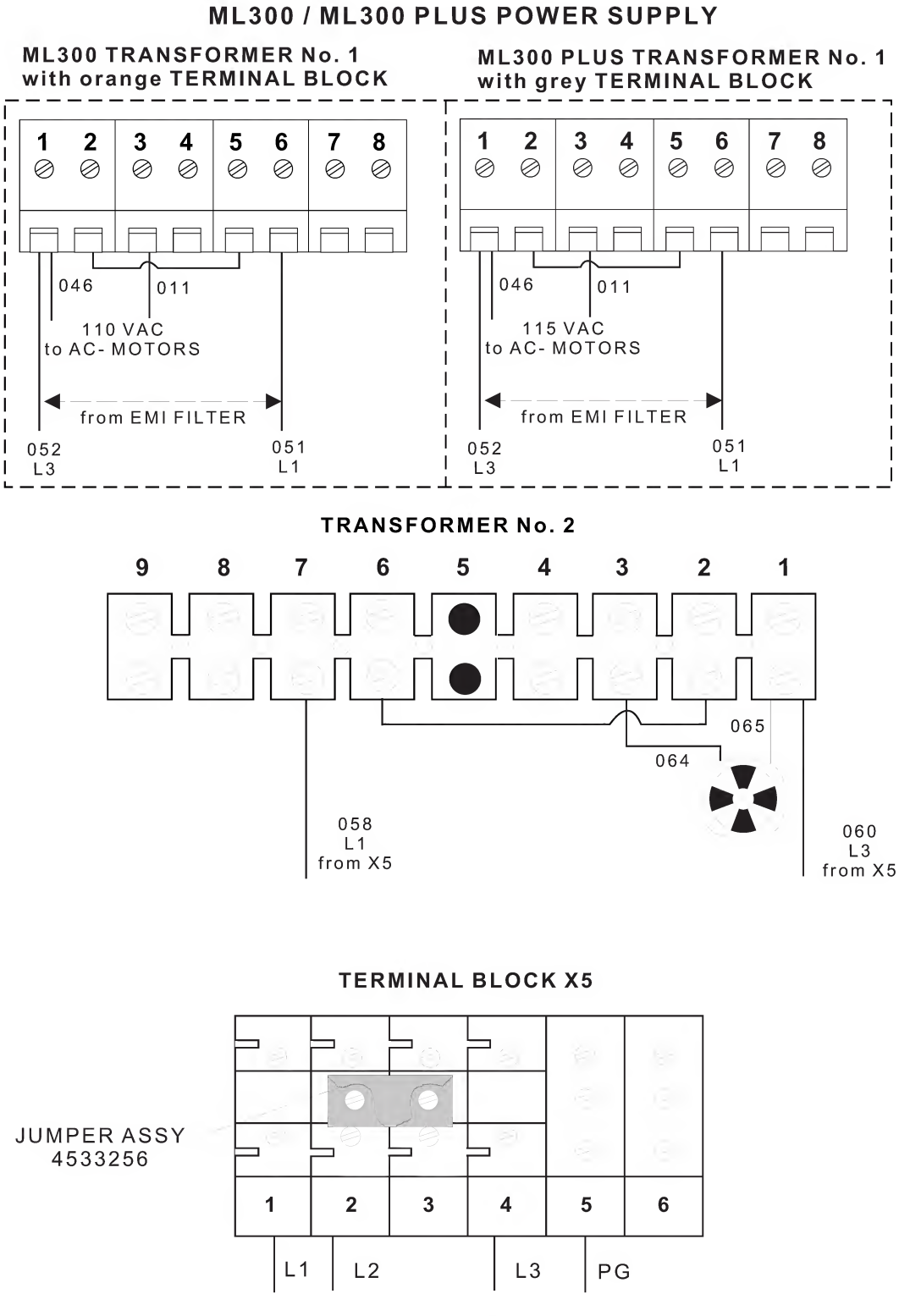



figure 5-37

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

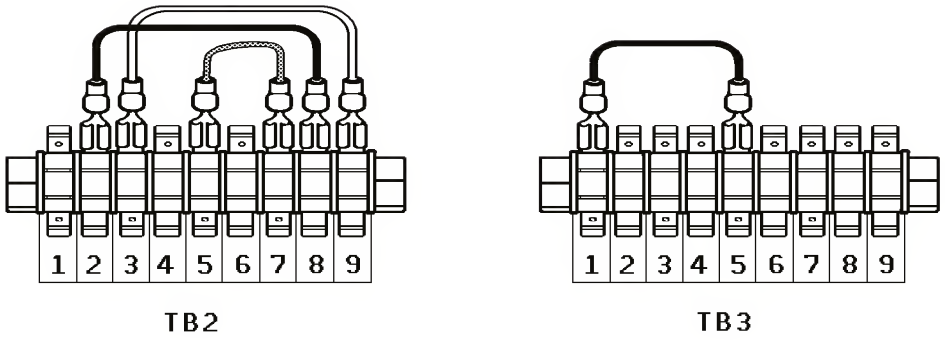



figure 5-38

## WIRING FOR 120/208 V (60Hz) 3 PHASES ( only L1 + L2 used)

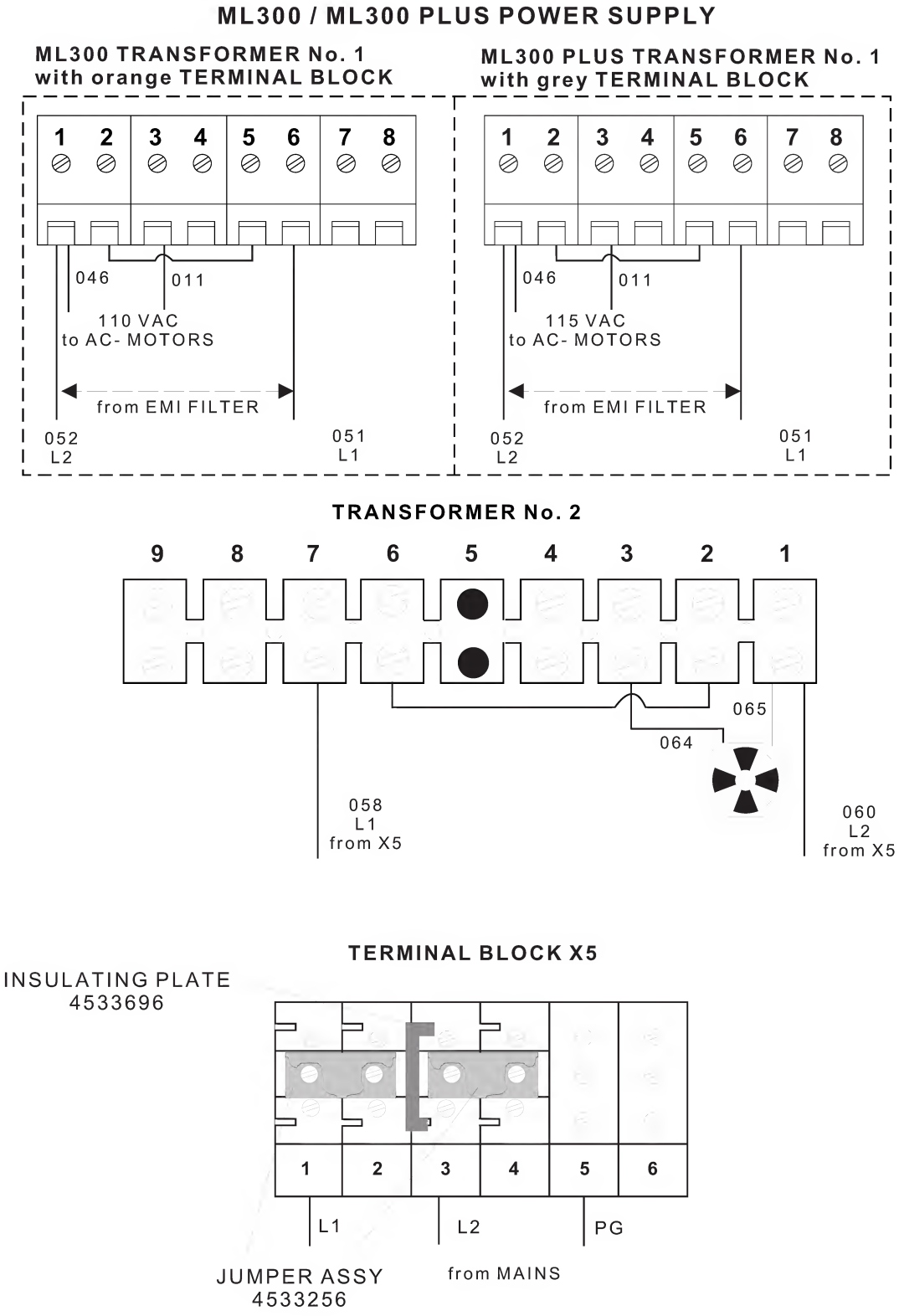



figure 5-39

## TERMINAL BLOCKS OF THE 270RA / 3000RA PROCESSOR

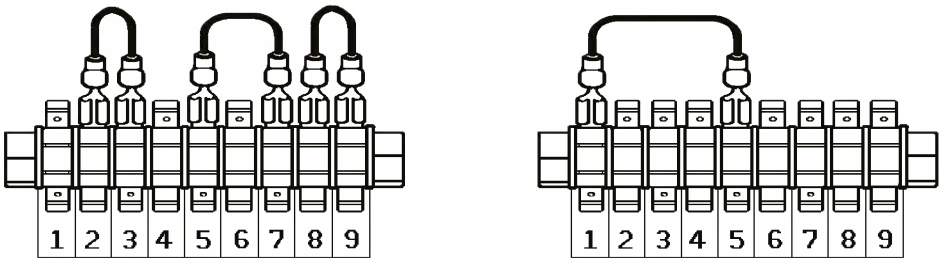



figure 5-40

# CHAPTER 6

## LEVELING THE XML 300 / XML 300 Plus

1. Open the FRONT DOOR.

2. Remove the SHIPPING PROTECTION and all MAGAZINES.

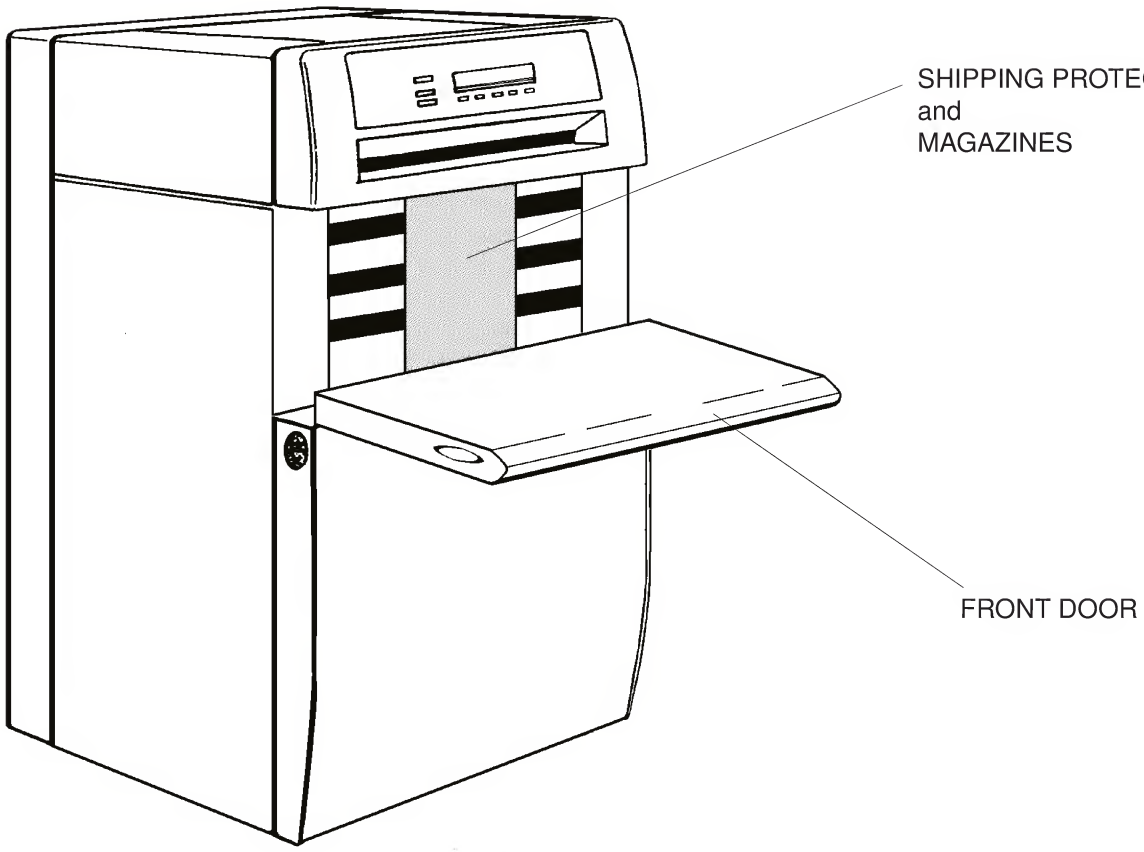



figure 6-1

3. Loosen the LOCKNUTS on LEVELING FEET and move all four LEVELING FEET down until the XML 300 / XML 300 PLUS stands on the LEVELING FEET and the CASTORS just touch the ground without any pressure.

4. Use a CARPENTERS LEVEL to check if the XML 300 / XML 300 Plus is horizontal.

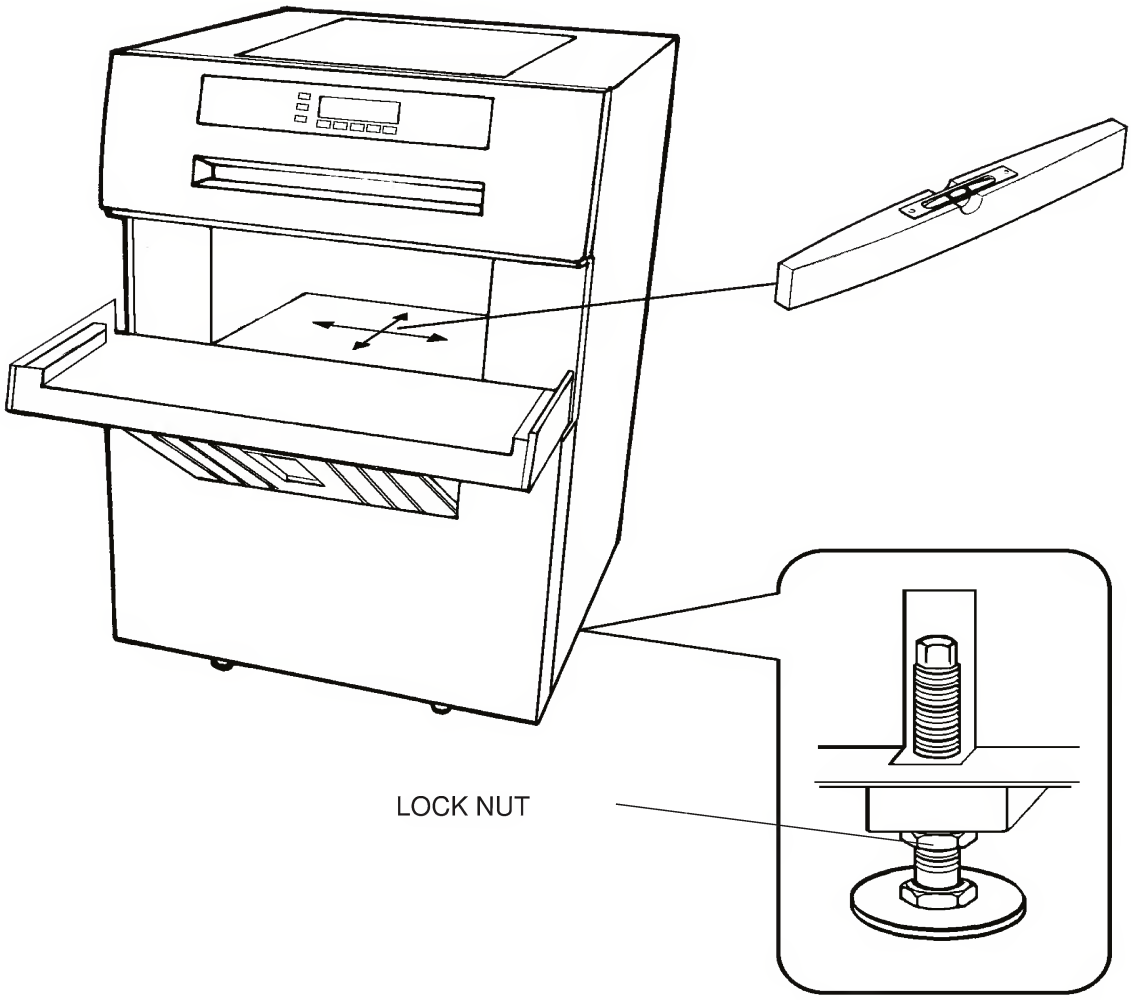



figure 6 - 2

5. If the XML 300 / XML 300 Plus is not horizontal adjust the LEVELING FEET.

**Note**

Check that all four LEVELING FEET touch the ground.

6. Fasten LOCKNUTS on LEVELING FEET.

# CHAPTER 7

# RESIZING MAGAZINES

The following film size configurations are possible:

| Film Size | Kodak X-Omat FILMS | Kodak Min-R FILMS | CRT FILM |
|---|---|---|---|
| 18x24 cm | X | X | |
| 18x43 cm | X | | |
| 20x40 cm | X | | |
| 24x24 cm | X | | |
| 24x30 cm | X | X | |
| 30x35 cm | X | | |
| 30x40 cm | X | | |
| 35x35 cm | X | | |
| 35x43 cm | X | | |
| 8x10 in. | X | | X |
| 10x12 in. | X | | |
| 11x14 in. | X | | |

It is also possible to code each FILM SIZE from the list above as a TYPE 2 FILM to use two different types of films of the same SIZE in the XML 300 / XML 300 Plus.

## To change MAGAZINE SIZES do the following:

1. Place the MAGAZINE on a flat surface with the BOTTOM up.

2. Remove the PHILLIPS SCREWS of the CODE BRACKETS to be changed.

3. Install the CODE BRACKETS for the SIZE CODING according to figure 5-2.

4. Remove the TOP COVER of the MAGAZINE.

5. Place the SEPARATORS L, R and REAR in the RECESSES corresponding to the selected FILM SIZE. See the drawing on the next page. The RECESSES are marked with the FILM SIZE.

**Note**

Make sure that SEPARATOR LEFT and SEPARATOR RIGHT are mounted correctly with the long STUD toward the HANDLE. Otherwise it will not be possible to close the MAGAZINE and all films might fall out when the MAGAZINE is carried.

**6**. Install the TOP COVER to the MAGAZINE.

**7**. Apply the correct FILM SIZE LABEL to the MAGAZINE.

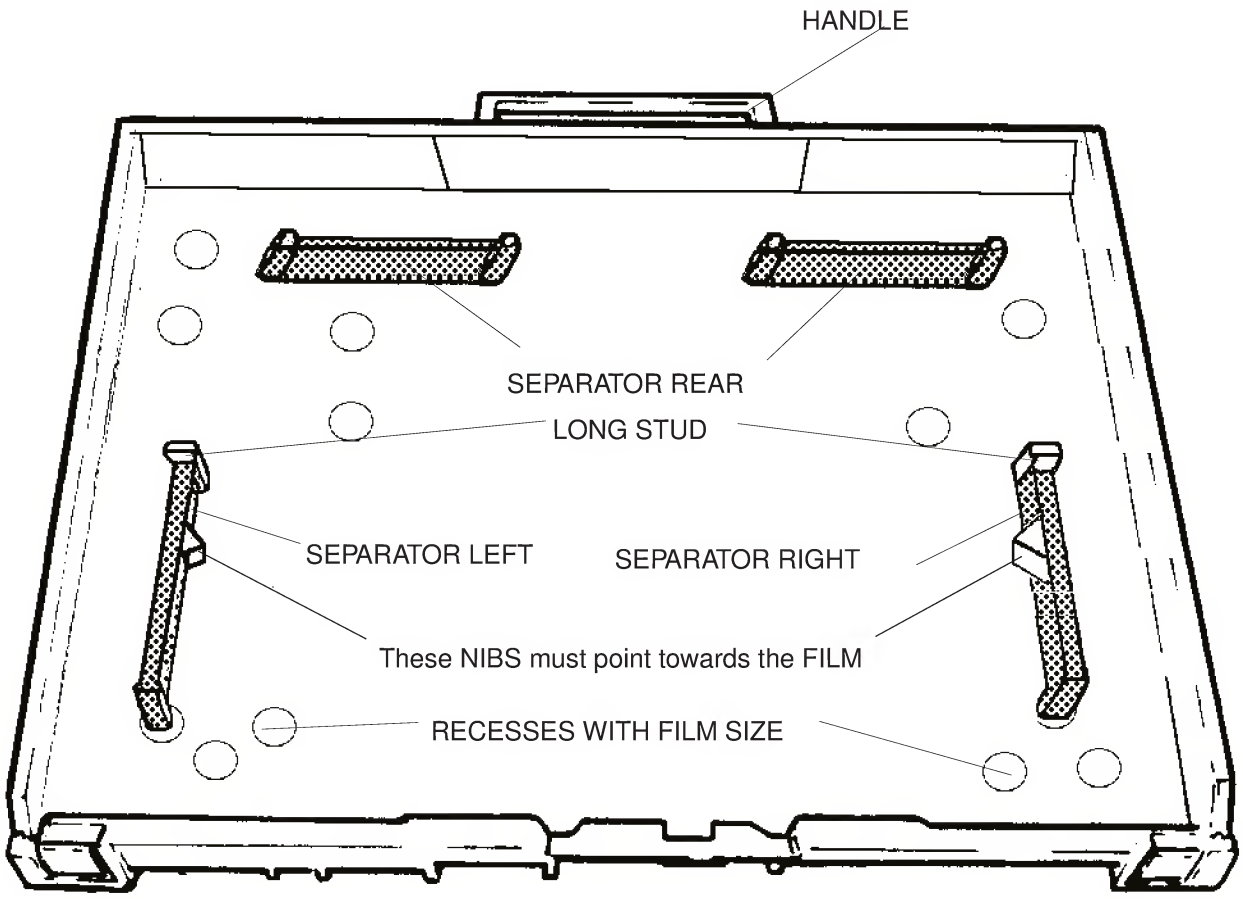
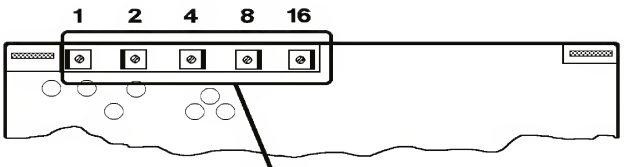



figure 7-1




| CASSETTE SIZE | FILM TYPE | CODE BRACKETS* | CODE Nº TYPE 1 | CODE Nº TYPE 2 |
|---|---|---|---|---|
| 18x24 cm | X-OMATIC FILM | | 1 | 17 |
| 18x24 cm | MAMMOGRAPHY FILM | | 8 | 24 |
| 18x43 cm | X-OMATIC FILM | | 9 | 25 |
| 20x40 cm | X-OMATIC FILM | | 13 | 29 |
| 24x24 cm | X-OMATIC FILM | | 2 | 18 |
| 24x30 cm | X-OMATIC FILM | | 10 | 26 |
| 24x30 cm | MAMMOGRAPHY FILM | | 11 | 27 |
| 30x35 cm | X-OMATIC FILM | | 6 | 22 |
| 30x40 cm | X-OMATIC FILM | | 14 | 30 |
| 35x35 cm | X-OMATIC FILM | | 4 | 20 |
| 35x43 cm | X-OMATIC FILM | | 12 | 28 |
| 8x10 inch | X-OMATIC FILM | | 5 | 21 |
| 8x10 inch | CRT FILM | | 3 | 19 |
| 10x12 inch | X-OMATIC FILM | | 15 | 31 |
| 11x14 inch | X-OMATIC FILM | | 7 | 23 |
| | | 1 2 4 8 16 | | |
| TYPE 1 for all sizes | | | | |
| TYPE 2 for all sizes | | | | |

* CODE BRACKETS : = = 0 = = 1

figure 7-2

# CHAPTER 8

# *Kodak X-Omatic* CASSETTES

## TYPE2 CODING OF CASSETTES

1. Place the REFLECTIVE STICKERS PN 9194551 on the CASSETTES as indicated on the following figures.

### C1 CASSETTES

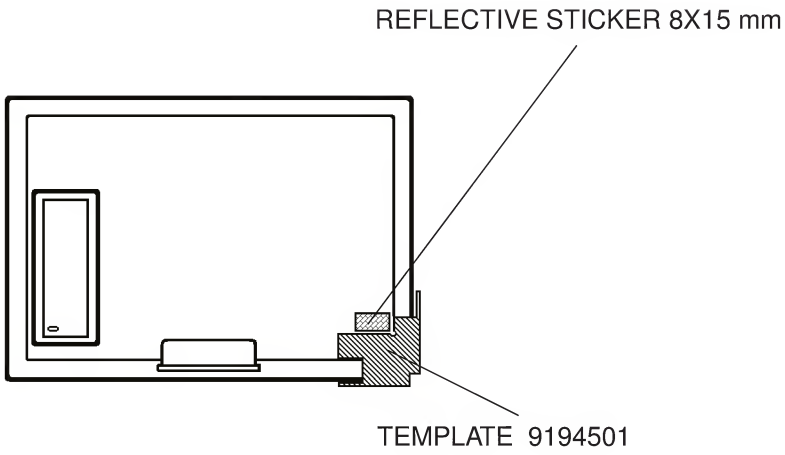



figure 8 - 1

### C2 CASSETTES

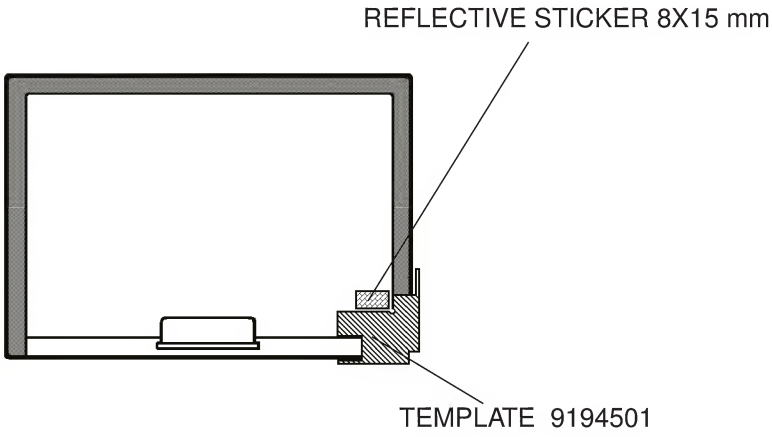



figure 8 - 2

## C3 CASSETTES

## MAMMO CASSETTES ( MIN R 2)

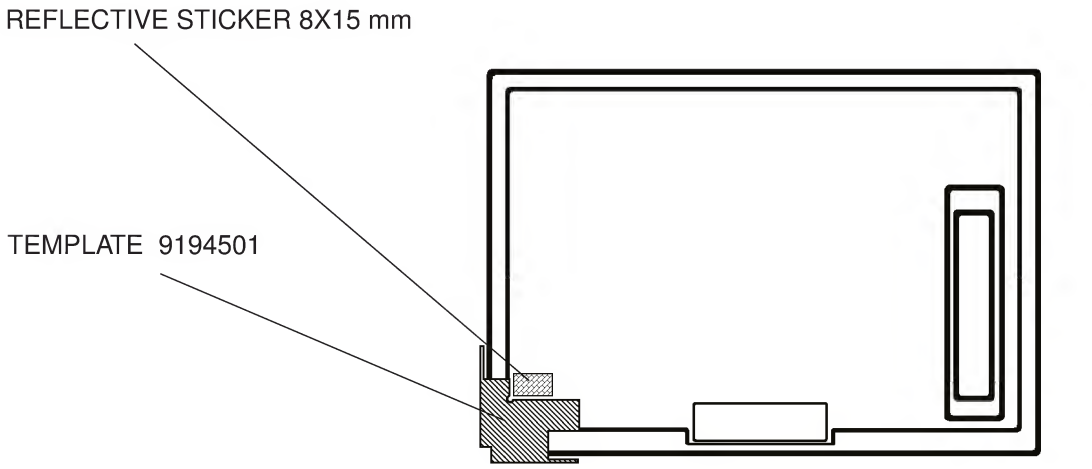



figure 8-3

For TYPE 2 coding two REFLECTIVE STICKERS have to be installed to the MAMMOGRAPHY CASSETTE.

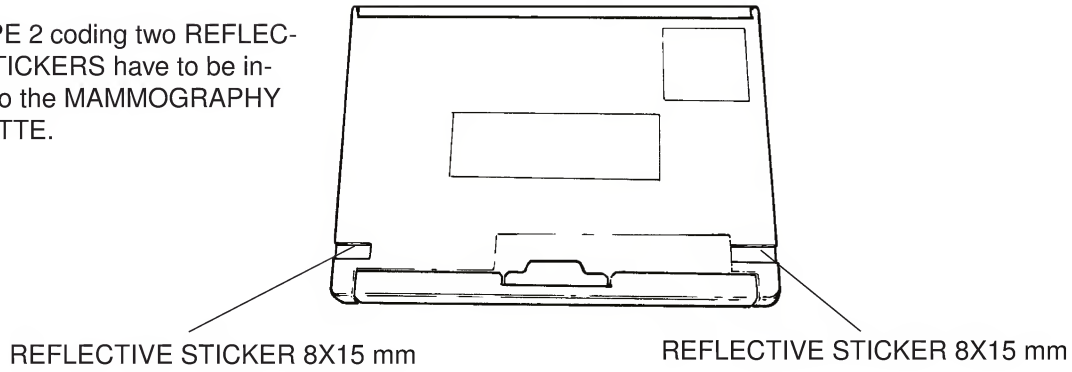
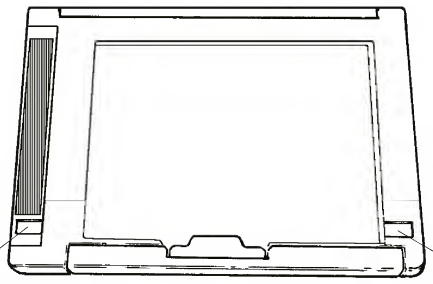



figure 8-4

## CRT CASSETTES ( VIDEO FILMHOLDERS )

**Important**

On CRT CASSETTES ( VIDEO FILMHOLDERS ) the REFLECTIVE STICKERS can be positioned either to the right or to the left ( C1 or C3 ). MAMMO CASSETTES are detected as TYPE 2 CASSETTES only if there are REFLECTIVE STICKERS on both sides on the CASSETTE.



REFLECTIVE STICKER 8x15 mm
**C3**

REFLECTIVE STICKER 8x15 mm
**C1**

figure 8-5

# CHAPTER 9

# CHECKING THE OPERATION OF THE PROCESSOR AND INSTALLING THE CHEMICALS

1. To allow correct operation of the LEVEL SENSOR, add 500 ml (8 fl oz) of:
   - developer to the DEVELOPER TANK
   - fixer to the FIXER TANK

2. Slowly fill the DEVELOPER and FIXER TANKS with water to the overflow limit.

**Warning**

Dangerous Voltage

3. Energise the main power.

   (a)Unlock the MAIN POWER DISCONNECT SWITCH and move it to the “1" position.
   (b) Move the CIRCUIT BREAKER CB1 to the “1" position.

4. Use the LAP TOP COMPUTER diagnostics to check the operation of the following components:
   - DRYER BLOWER
   - REPLENISHMENT PUMPS
   - RECIRCULATION PUMP - Operate the PUMP for a minimum of 10 seconds to remove any air in the system.
   - WASH WATER SOLENOID
   - DEVELOPER SOLENOID
   - COVER INTERLOCK SWITCH
   - DEVELOPER and FIXER SENSORS

5. Check:
   - that the water drains smoothly
   - that the plumbing system has no leakage

6. Deenergise the main power.

# INSTALLING THE DEVELOPER FILTER

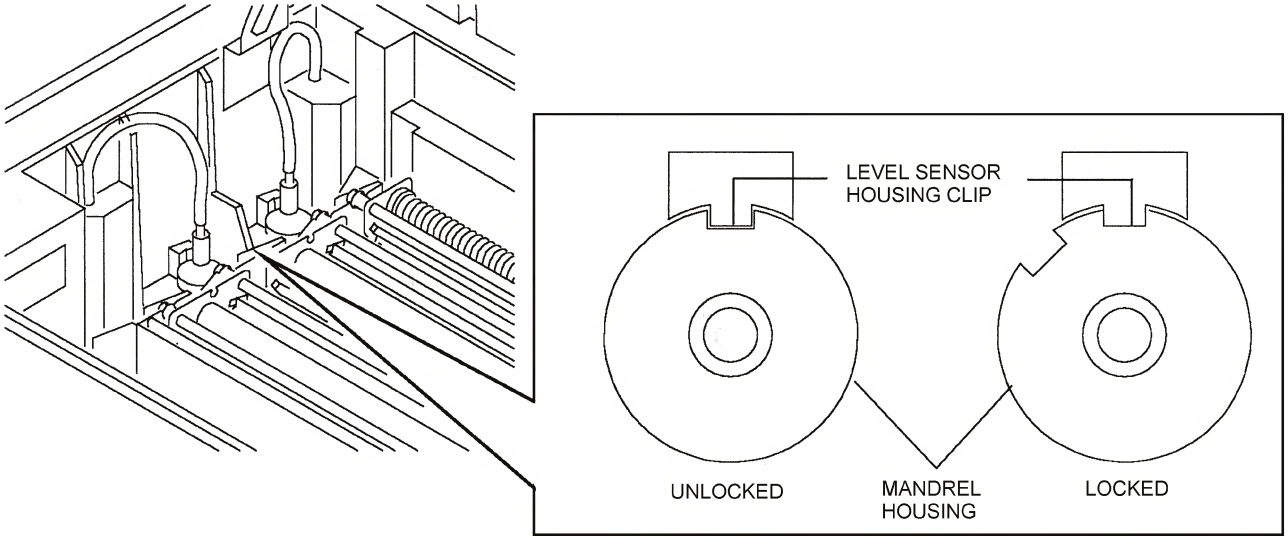



figure 9-1

1. Rotate the MANDREL HOUSING to the unlocked position and remove the DEVELOPER MANDREL.

**Note**

The DEVELOPER HOUSING is in the unlocked position when the notch aligns with the LEVEL SENSOR HOUSING CLIP.

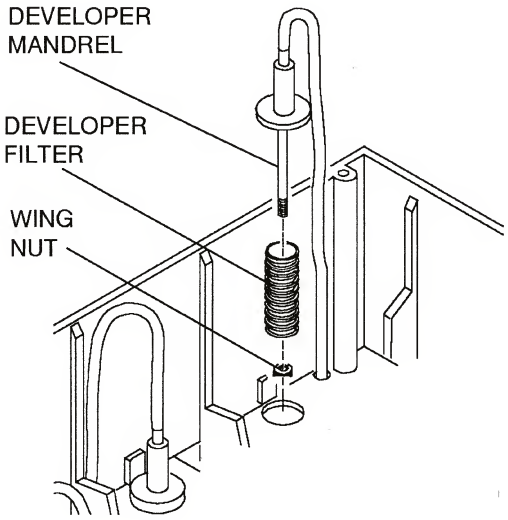



figure 9-2

2. Remove the WING NUT.

3. Install:
   - DEVELOPER FILTER
   - WING NUT
   - DEVELOPER MANDREL

4. Check that the:
   - DEVELOPER MANDREL is seated correctly
   - MANDREL HOUSING is in the locked position

## INSTALLING THE CHEMICALS

**Important**

The REPLENISHMENT PUMPS must be calibrated correctly to:

- obtain the correct image quality and performance
- save chemicals and money

1. Calibrate the REPLENISHMENT PUMPS. See Calibrating the Replenishment System under the Basic Setup Options in the Operator Manual.

2. Drain the water from the TANKS.

3. Mix the chemicals and fill the processing TANKS.

# CHAPTER 10

# SET-UP THE XML 300 / XML 300 Plus

## 1. PREPARATION OF THE LAP TOP

**Prerequisites:**

1. Lap Top time and date is set correctly and Service Software 3.30 or higher must be available. If an earlier version is used, PARAMETERS “CASS OPEN RETURN” and “DOUBLE SHEET DET” cannot be set.

**Note**

Starting with SN 3000 the XML 300 has a different DOUBLE FILM SENSOR. The XML 300 Plus has the same. The old DOUBLE FILM SENSOR detects if there is more than 1 FILM or less. The new SENSOR is able to discriminate between no FILM, 1 FILM and more than 1 FILM.

2. If other languages or another sequence of languages are needed, the files from the OPERATING & LANGUAGE SOFTWARE DISKETTE must be on the hard disk of the LAP TOP.

**Note**

ENSURE THAT THE LATEST OPERATING SOFTWARE VERSION IS ON THE LAP TOP. IT IS NOT POSSIBLE TO USE 2 DIFFERENT VERSIONS ON THE LAP TOP. WHEN A SOFTWARE DOWNLOAD IS MADE, ALL FILES FROM C:\XML 300\FL_SOFT WILL BE TRANSFERRED TO THE MULTILOADER. IT IS NOT POSSIBLE TO SELECT ANOTHER PATH.

To download the files to the LAP TOP, use the following procedure:

*Insert the OPERATING & LANGUAGE SOFTWARE DISKETTE into DISK DRIVE A:*
*Select DRIVE A:*
*Key in INSTALL .....press ENTER*
*All files are now downloaded to the hard disk of the LAP TOP*

## 2. ENTERING UNIT DATA

The UNIT DATA is downloaded to the ML300 via the LAP TOP. They consist of:

- SERIAL NUMBER of the ML300
- UNIT ID
- CUSTOMER NAME
- ADDRESS
- COUNTRY
- INSTALLATION DATE

This data is displayed, whenever the SERVICE MODE is entered, they are copied to the HISTORY DISKETTE and they are copied to the HARD DISK in the DIRECTORY C:XML 300\MACHINE\ST_xxxxx.DAT.

Enter the UNIT DATA

*Start the SERVICE PROGRAM*
*Select SERVICE MODE from the GLOBAL MENU .....press ENTER*
*ENTER SERVICE MODE MESSAGE is displayed.....press ENTER*
*UNIT DATA are displayed .....press ENTER*
*Select CHANGE ML300 DATA from the MAIN MENU .....press ENTER*
*Select CHANGE UNIT DATA .....press ENTER*
*Key in the UNIT DATA*
*Select STORE INSTALL. DATA.....press ENTER*
*Select RETURN TO MAIN MENU .....press ENTER*

## 3. SETTING THE TIME AND DATE

*Select CHANGE ML300 DATA.....press ENTER*
*Select SET TIME AND DATE .....press ENTER*
*Select TIME & DATE OF LAPTOP .....press ENTER*
*Select STORE IN ML300 .....press ENTER*
*Select RETURN TO MAIN MENU .....press ENTER*

## 4. IMPLEMENTATION OF THE LANGUAGES

The following 4 languages are the default languages and are already factory installed:

- GERMAN
- FRENCH
- SPANISH
- ENGLISH

Up to 4 languages can be downloaded to the ML300. These languages will overwrite the installed default languages.

Twelve languages are available:

- DANISH
- DUTCH
- ENGLISH
- FINNISH
- FRENCH
- GERMAN
- ITALIAN

- JAPANESE
- NORWEGIAN
- PORTUGUESE
- SPANISH
- SWEDISH

If less than 4 languages are selected, the selected ones plus the remaining default languages are downloaded.

**Example 1:**

Selected languages are SWEDISH and DANISH

Downloaded languages:

- 1. SWEDISH (selected)
- 2. DANISH (selected)
- 3. SPANISH (default)
- 4. ENGLISH (default)

**Example 2:**

Selected language is ENGLISH

Downloaded languages:

- 1. ENGLISH (selected)
- 2. FRENCH (default)
- 3. SPANISH (default)
- 4. ENGLISH (default)

**Example 3:**

Selected languages none:

Downloaded languages:

- 1. GERMAN (default)
- 2. FRENCH (default)
- 3. SPANISH (default)
- 4. ENGLISH (default)

1. Download the selected languages from DRIVE C: to the ML300.

*Select INSTALLATION from the MAIN MENU .....press ENTER*
*Select SOFTWARE UPDATE from the menu INSTALLATION..press ENTER*
*Select the desired languages (up to 4).....press ENTER*

**Note**

ALWAYS SELECT YOUR OWN LANGUAGE FIRST TO OVERRIDE THE DEFAULT LANGUAGES. THE SELECTED LANGUAGES ARE MARKED WITH AN ASTERISK.

*Select SOFTWARE UPDATE.....press ENTER*
*Key in YES .....press ENTER*

The software of the SYSTEM UNIT is now updated. The amber and the red LED on the OPERATOR DISPLAY are flashing alternately. After the software of the SYSTEM UNIT is downloaded, the error code 00 00 00 00 00 is displayed and the green LED on PCB A1 is switched on.

The software of the CASSETTE UNIT is now updated. The red LED on PCB A8 is flashing.

The software of the MAGAZINE UNIT is now updated. The red LED on PCB A4 is flashing.

The complete operating software is downloaded and the red LED at the OPERATOR CONTROL PANEL is switched on.

2. Switch off the ML300.
Wait 5 seconds.
Switch on the ML300 again.

3. Exit the SOFTWARE UPDATE PROGRAM.

*Press any key at the LAP TOP*
*Select RETURN from SOFTWARE UPDATE .....press ENTER*

## 5. CLEAR THE MEMORIES

Clear the memories to ensure that all COUNTERS are RESET.

*Start the SERVICE PROGRAM*
*Select SERVICE MODE from the GLOBAL MENU.....press ENTER*
*ENTER SERVICE MODE MESSAGE is displayed.....press ENTER*
*UNIT DATA are displayed .....press ENTER*
*Select CHANGE ML300 DATA from the MAIN MENU.....press ENTER*
*Select CLEAR MEMORIES.....press ENTER*
*Select CLEAR ALL MEMORIES.....press ENTER*
*Select YES.....press ENTER*
*Press BACKSPACE*
*Select GRAND TOTAL COUNTER.....press ENTER*
*Select YES.....press ENTER*
*Press BACKSPACE*

*Select TOTAL CYCLE COUNTER.....press ENTER*
*Select YES.....press ENTER*
*Press BACKSPACE 3 times*
*Select QUIT ML300 SERVICE MODE.....press ENTER*
*Select Quit the program.....press ENTER*

## 6. SWITCH SETTING OF S1-1 AND S1-2 ON PCB A1

### S1-1

Normally S1-1 should be set to OFF (down). In this case some errors can only be reset with the LAP TOP (see the SERVICE MANUAL SUPPLEMENT SN>2000).

If S1-1 is set to ON (up) the following options are enabled:

1. The OPERATOR can reset the XML 300 after every malfunction just by pressing the left-hand BUTTON. He can then try to start another cycle.

This RESET cannot solve a real hardware problem or a film jam when it tries to recover from the problem. In such a case the problem will occur again in the next cycle. This means an exposed

**Caution**

FILM would become lost. For this reason set S1-1 only to ON if the CUSTOMER is aware of this risk and if he is willing to accept it.

2. After selecting “FUNCTION” on the OPERATOR CONTROL PANEL the following selection is displayed:

   **TYPE2 USAGE LANG CLEAR**

   When S1-1 is ON (up) an altered selection is displayed:

   **TYPE2 SYSTEM USAGE LANG CLEAR**

   **SYSTEM** contains the following 4 options:

   **TIME** This gives date and time.

   **HISTO** This gives information on the communication between the MAIN PROCESSOR PCB A1 and the SLAVE PROCESSORS PCB’s A3/1, A3/2 and the 270RA PROCESSOR.

**Note**

THIS INFORMATION CAN ONLY BE ANALYSED IN THE FACTORY.

**3**. An additional option is enabled in the ERROR MENU.

**CLEAR** **CODE** **RETURN**

In case of an error (this means the red error lamp is on), the second key from the left is enabled. If it is pressed the history of the last faulty cycle is given and the following line is displayed.

⇑ ⇓ **RETURN**

With the ARROW KEYS you can scroll through the history.

**Note**

THIS INFORMATION CAN ONLY BE ANALYSED BY THE FACTORY. When a history diskette is made, this information is automatically copied to the diskette, weather S1-1 is on or off.

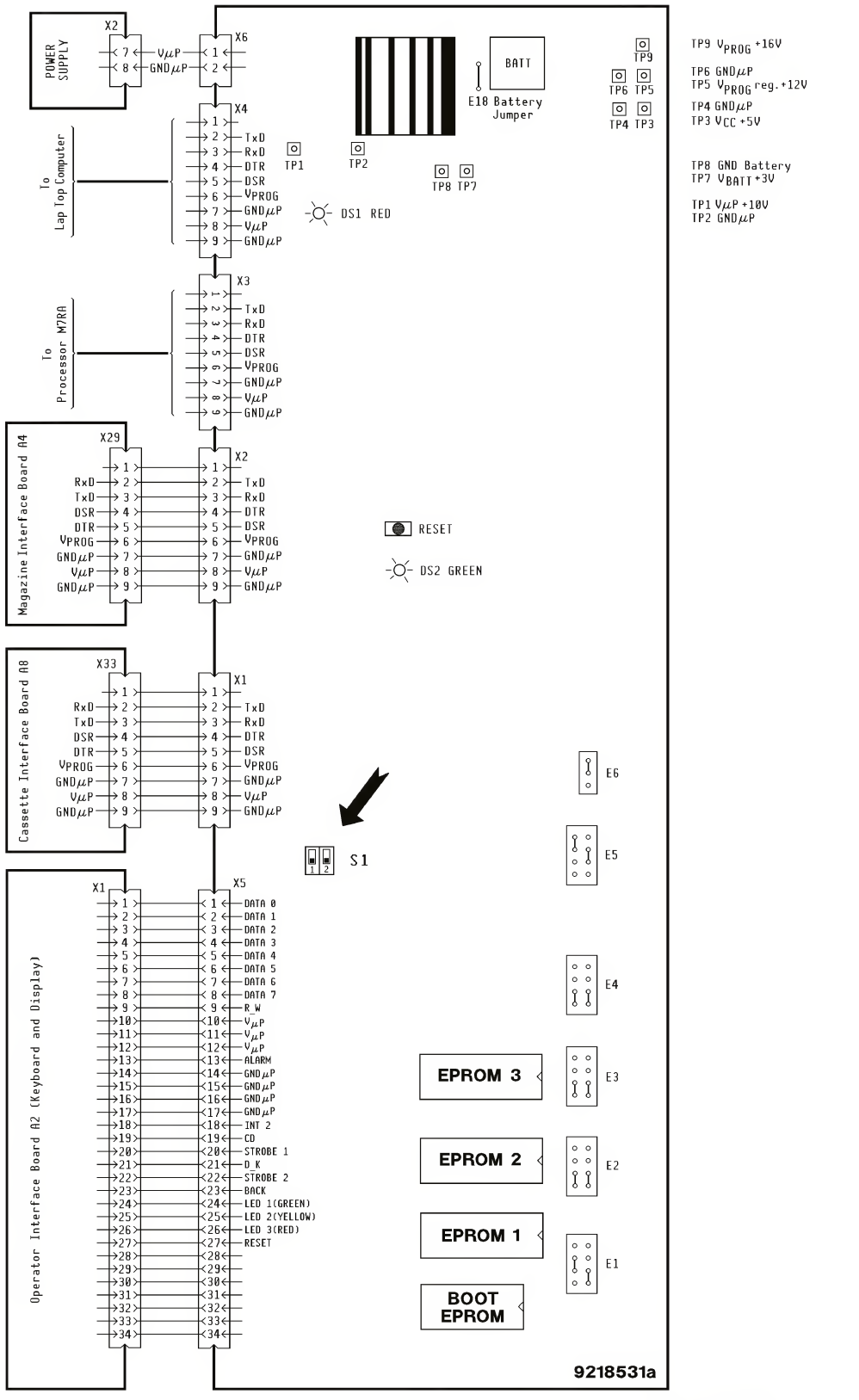
S1-2

**Caution**

Do not leave S1-2 in the up position. The CUSTOMER could lose exposed films if for any reason the PROCESSOR is switched off. Use S1-2 in the up position for trouble shooting only.

NORMALLY S1-2 SHOULD BE SET TO OFF (DOWN). IF IT IS SET TO ON (UP) THE FOLLOWING OPTION IS ENABLED:

The XML 300 / XML 300 Plus is running while the 270RA / 3000RA PROCESSOR is turned off. After power up an error message is displayed and can be overridden by pressing CLEAR. From this moment on the turned off PROCESSOR will be ignored.




**OLD VERSION**
**MAIN PROCESSOR CIRCUIT BOARD A1**

figure 10-1

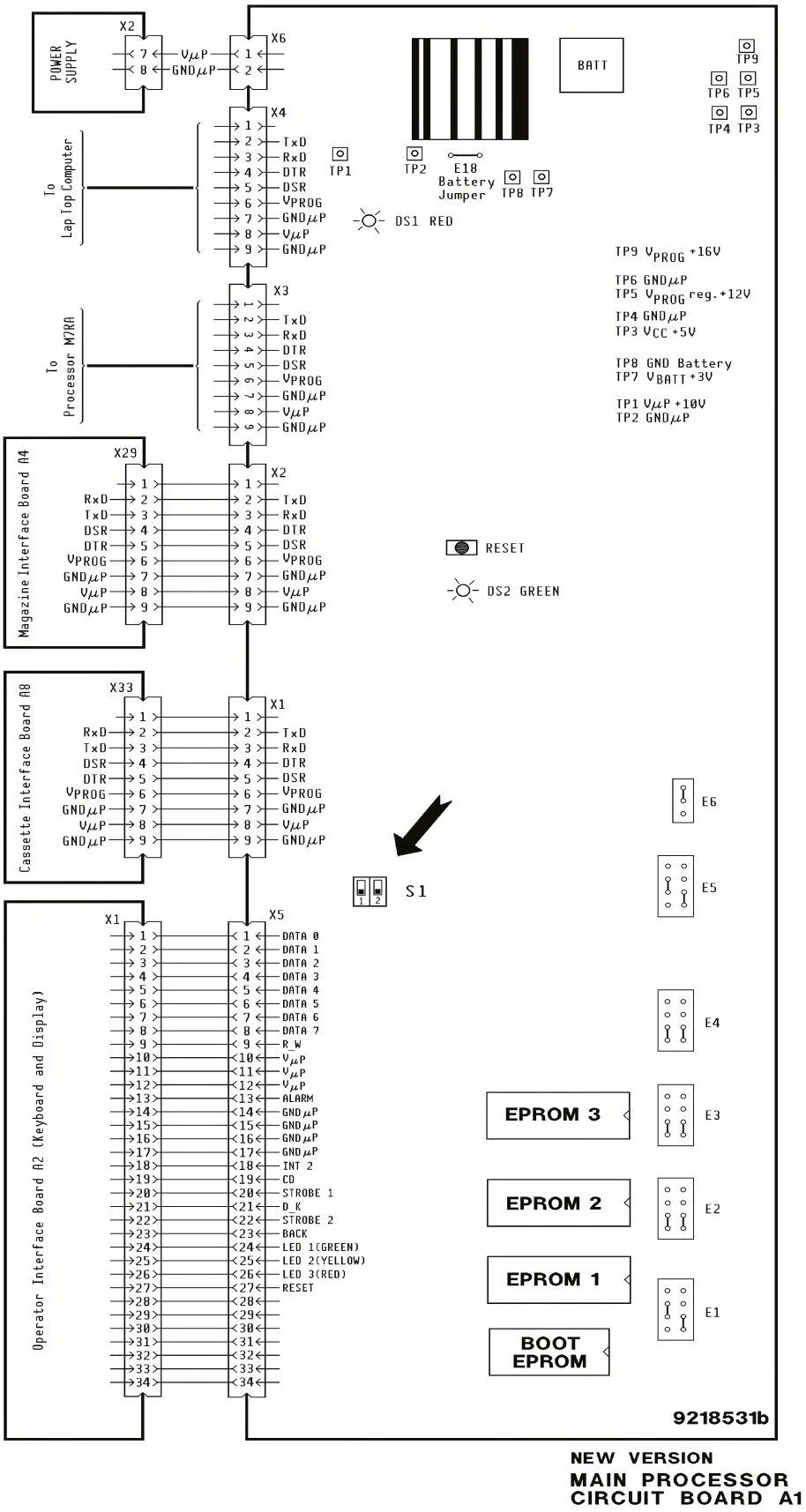

POWER SUPPLY
X2
X6
7 VμP
8 GNDμP
1
2
X4
To Lap Top Computer
1 2 TxD 3 RxD 4 DTR 5 DSR 6 VPROG 7 GNDμP 8 VμP 9 GNDμP
TP1
TP2
E18 Battery Jumper
TP8 TP7
BATT
TP9
TP6 TP5
TP4 TP3
DS1 RED
TP9 VPROG +16V
TP6 GNDμP
TP5 VPROG reg.+12V
TP4 GNDμP
TP3 VCC +5V
TP8 GND Battery
TP7 VBATT +3V
TP1 VμP +10V
TP2 GNDμP
X3
To Processor M7RA
1 2 TxD 3 RxD 4 DTR 5 DSR 6 VPROG 7 GNDμP 8 VμP 9 GNDμP
Magazine Interface Board A4
X29
X2
RxD 2 TxD 3 DTR 4 DSR 5 VPROG 6 GNDμP 7 VμP 8 GNDμP 9
1 TxD 2 RxD 3 DTR 4 DSR 5 VPROG 6 GNDμP 7 VμP 8 GNDμP 9
RESET
DS2 GREEN
Cassette Interface Board A8
X33
X1
RxD 2 TxD 3 DSR 4 DTR 5 VPROG 6 GNDμP 7 VμP 8 GNDμP 9
1 TxD 2 RxD 3 DTR 4 DSR 5 VPROG 6 GNDμP 7 VμP 8 GNDμP 9
S1
E6
E5
E4
E3
E2
E1
Operator Interface Board A2 (Keyboard and Display)
X1
X5
1 DATA 0 2 DATA 1 3 DATA 2 4 DATA 3 5 DATA 4 6 DATA 5 7 DATA 6 8 DATA 7 9 R_W 10 VμP 11 VμP 12 VμP 13 ALARM 14 GNDμP 15 GNDμP 16 GNDμP 17 GNDμP 18 INT 2 19 CD 20 STROBE 1 21 D_K 22 STROBE 2 23 BACK 24 LED 1(GREEN) 25 LED 2(YELLOW) 26 LED 3(RED) 27 RESET 28 29 30 31 32 33 34
EPROM 3
EPROM 2
EPROM 1
BOOT EPROM
9218531b
NEW VERSION
MAIN PROCESSOR CIRCUIT BOARD A1

figure 10-2

## 7. SWITCH SETTING OF S1-1 ON PCB A4

1. Normal condition (no DFF HARDWARE installed)
   The left-hand DIP SWITCH S1 must be set to **OFF**, otherwise error M-D4 will show up.

**Note**

IN SOME CASES THE DIP SWITCH IS INSTALLED UPSIDE DOWN. THEREFORE LOOK FOR THE IMPRINT “ON” AS REFERENCE

2. DFF HARDWARE installed
   In this case the setting of the DIP SWITCH S1 is not important, because it is by-passed by a GROUND CONNECTION on PCB A12. To avoid confusion, set S1 to **ON**.

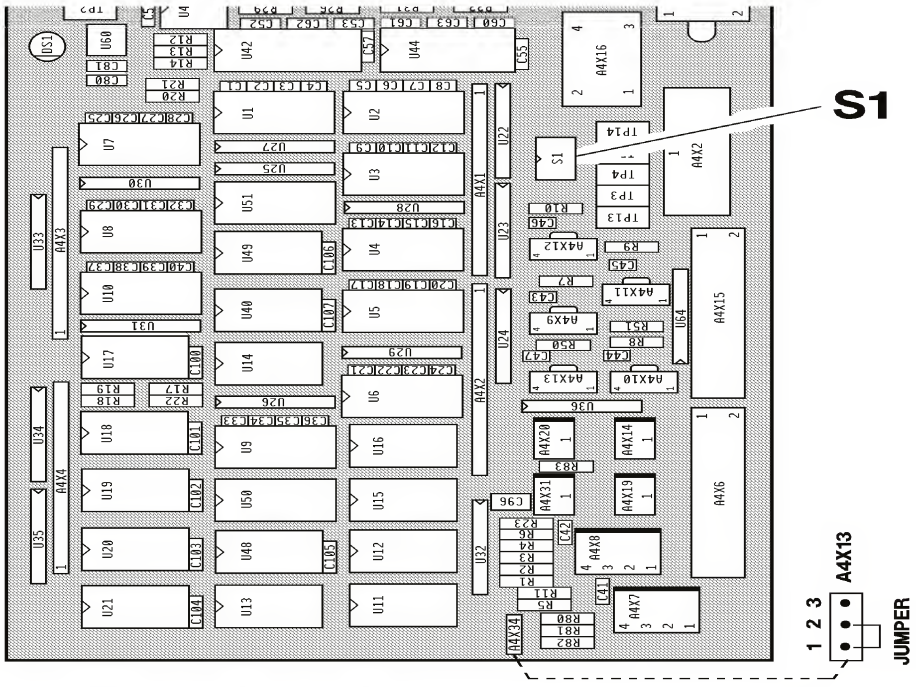



figure 10-3

# CHAPTER 11

# PARAMETER SETTING

**Caution**

Do not select new languages during installation if SERVICE SOFTWARE 3.30 or higher is not available. The XML 300 / XML 300 Plus may not function any longer.

## PARAMETER SETTING

**Note**

The PARAMETERS are set to the correct value by manufacturing.The following is just a summary.

1. **Changing a PARAMETER**

   *Start the SERVICE PROGRAMM*
   *Select SERVICE MODE from the GLOBAL MENU.....press ENTER*
   *ENTER SERVICE MODE MESSAGE is displayed.....press ENTER*
   *UNIT DATA are displayed.....press ENTER*
   *Select CHANGE ML300 DATA from the MAIN MENU.....press ENTER*
   *Select CHANGE PARAMETER.....press ENTER*
   *Select the PARAMETER to be changed*
   *Key in the selected value .....press ENTER*
   *Select STORE PARAMETER.....press ENTER*

### The following PARAMETERS can be changed:

### VACUUM OFF TIME

It is used to turn off the CASSETTE SUCKER BAR VACUUM at the correct time. As soon as SENSOR B20 VACUUM OFF detects the leading edge of the FILM, the VACUUM OFF TIME is started.

- 1 incr. = 10 msec
- Range 00h...0Fh
- Default value 08h

### BLOW TIME

The CASSETTE OPENER opens the CASSETTE and a stream of air separates the the film from the LID SCREEN.

- 1 incr. = 10 msec
- Range 00h..FFh
- Default value 64h

## DISABLE OPENER

Up to SN 1027 of the XML 300 on PCB A9 a weak POWER AMPLIFIER was used. It could not drive the CASSETTE OPENER MOTOR M5 and the CASSETTE INPUT MOTOR M5 at the same time.

- NEW PCB: 00h
- OLD PCB: AAh

## CASSETTE OFFSET

This PARAMETER is changed by the function CASSETTE LENGTH. It is not possible to key in a value.

## DISABLE INTERF

This PARAMETER is used only for service. The MULTILOADER can run a cycle with the FILM CHUTE rotated out.

- FILM CHUTE in place (normal operating condition): 00h
- FILM CHUTE rotated out (for service): AAh

## CASS OPEN RETURN

**Note**

In case of problems set this PARAMETER to 00.

The function to return an empty CASSETTE open can be disabled with a PARAMETER. To disable it SERVICE SOFTWARE 3.30 or higher is required.

- 00 = An empty CASSETTE is closed before it is transported out.
- 01 = An empty CASSETTE will be returned open.
- 00 = DEFAULT

## MAGAZINE LEVEL 1, 2, 3
## MAGAZINE HOME POS
## GEAR BACKLASH

These PARAMETERS can only be changed with the function SCAN RUN. It is not possible to key in any value.

The displayed values are used to transport the FILM POCKET to the correct position.

## ADDITIONAL STEPS

A good contact between the MAGAZINE SUCKERS and the top FILM in the MAGAZINE must be achieved. The FILM POCKET moves down the amount of additional steps after the top FILM is reached.

- 1 increment = 0.09mm
- Range 00h..1Eh
- Default value 0Ah

## NEARLY EMPTY

This PARAMETER is changed by the function NEARLY EMPTY. It is not possible to key in a value.

## TILT POSITION

To achieve good film separation in the MAGAZINE, the FILM POCKET has to move up a certain amount of steps, after the fresh FILM is picked up, and the SUCKER BAR is then tilted.

- 1 increment = 0.09mm
- Range 00h..46h
- Default value 14h

## LOWER POCKET ST

The fresh FILM must be placed correctly in the CASSETTE. It might be possible that the fresh FILM floats out of the CASSETTE tgrough the gap between BLOW PIPES and CASSETTE. To avoid this, the PARAMETER LOWER POCKET has to be set to the correct amount of steps.

- 1 increment = 0.09mm
- Range. 00h..64h

## PARAMETER DOUBLE SHEET DET

The DOUBLE SHEET DETECTOR of ML300s with SN > 3000 is able to discriminate between:

no FILM (The DOUBLE SHEET DETECTOR of ML300s with SN < 3000 cannot do this)

1 FILM

more than 1 FILM

- XML 300 SN < 3000 01h
- XML 300 SN > 3000 00h
- XML 300 Plus 00h

# CHAPTER 12

# SEISMIC MOUNTS

**Note**

THIS KIT IS ONLY NECESSARY FOR AREAS PRONE TO EARTHQUAKES. OBSERVE YOUR LOCAL REGULATIONS. THE MOUNTING HARDWARE FOR STEP 5 AND 6 IS NOT PART OF THE SEISMIC MOUNT KIT. THE TYPE OF FLOOR AT THE CUSTOMER SITE CANNOT BE KNOWN IN ADVANCE BY THE FACTORY. MAYBE THE INSTALLATION HAS TO BE DONE BY A LOCAL CRAFTSMAN.

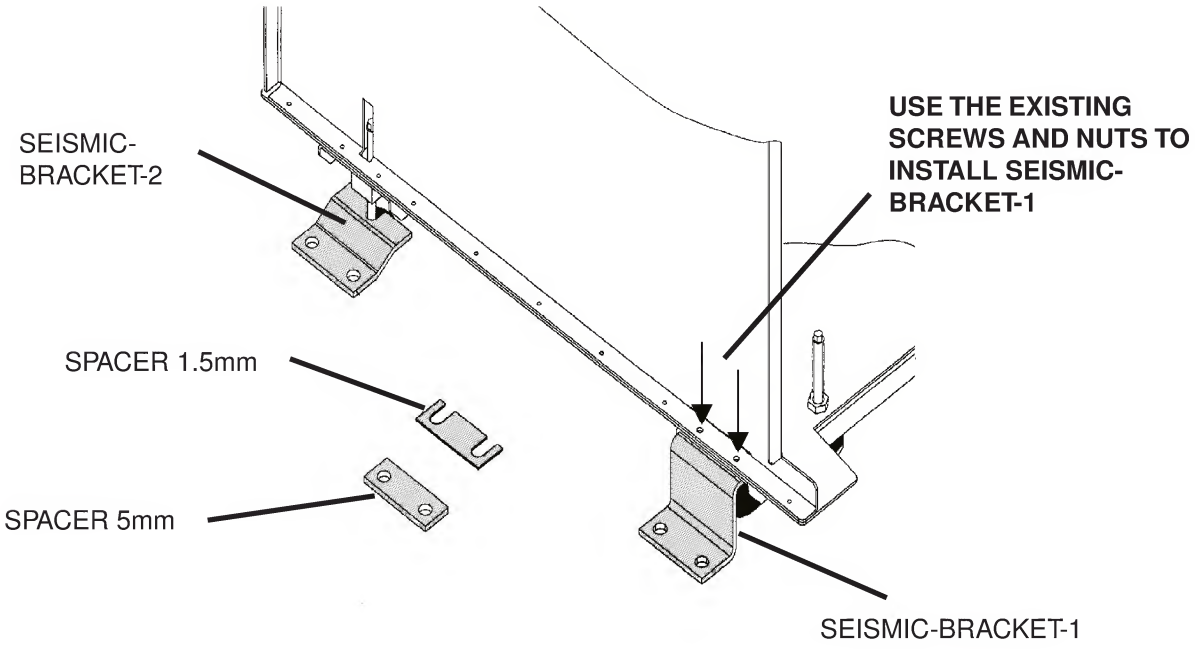



figure 12-1

**The SEISMIC MOUNT KIT 9221970 includes:**

| | | |
|---|---|---|
| SEISMIC-BRACKET-1 | 9211971 | 2 |
| SEISMIC-BRACKET-2 | 9211981 | 2 |
| SPACER 1.5mm | 9211991 | 9 |
| SPACER 5.0mm | 9211921 | 6 |

1. Mount the SEISMIC-BRACKET-1 to either side of the XML 300 / XML300 Plus. Use the existing MOUNTING SCREWS of the CASTERS.

2. Slide the the SEISMIC-BRACKET-2 over the REAR LEVELLING FOOT on either side of the XML 300 / XML 300 Plus.

3. Use the amount of SPACERS necessary between SEISMIC-BRACKETS and floor.

4. Mark the position of the holes at the floor.

5. Drill the holes into the floor.

6. Fasten the SEISMIC-BRACKETS to the floor.

# CHAPTER 13

# DARK ROOM FILM FEEDER INSTALLATION

## REQUIREMENTS

The installation of the DFF to the XML 300 requires that the Modification 30 Type 1 is built in. The integrated processor *Kodak X-Omat* 270 RA PROCESSOR must have software version 2.55 or higher. For the XML 300 OPERATING SOFTWARE VERSION 3.24 or higher is required.

## PACKING LIST

| | | |
|---|---|---|
| DFF INTERFACE PCB A12 | **9250484** | **1** |
| FILM CHUTE | **9250433** | **1** |
| GROUND WIRE | **9250631** | **1** |
| INTERFACE CABLE | **9250621** | **1** |
| NUT | **4853551** | **4** |
| OPERATOR MANUAL | **9250002** | **1** |
| POWER DISTRIBUTION CABLE (T-ADAPTER) | **9250671** | **1** |
| REAR PANEL INC. DRAWER | **9250124** | **1** |
| SCREW | **4283651** | **4** |
| SENSOR MOUNTING SCREW | **4282831** | **1** |
| SPACER | **4538531** | **4** |
| WOODEN FRAME | **9250193** | **1** |

## UPGRADE KIT Cat. No. 7146293 for SN<2001

| | | |
|---|---|---|
| GROUNDING SOCKET | 4526001 | 1 |
| PROCESSOR INTERFACE | 9256003 | 1 |
| SCREW | 4282831 | 11 |
| SUPPORT BLOCK | 9250691 | 1 |
| TOOTHED WASHER | 4500421 | 2 |
| BOOT EPROM U20 | 699551 | 1 |

## ADDITIONAL SPECIAL TOOLS

- Electric Drill
- Cleaner (Alcohol)
- Two Compound Cement
- For the other tools see the listing on page 1-2.

## ADDITIONAL PARTS REQUIREMENTS

The mounting hardware for the DFF WOODEN FRAME ( e.g. screws , dowels ... ) are not included with the kit. It is not known in advance which type of wall is at the customer site. To

avoid kinked drain and supply hoses, in some cases (depending on the customer site) a protection is needed. The parts for this protection are not included in the kit, as it is not necessary for each customer site.

## INSTALLATION OF THE DFF WOODEN FRAME

1. Move Part 1 (bottom part) of the WOODEN FRAME from the daylight side into a central position on the ground in the wall cut-out.

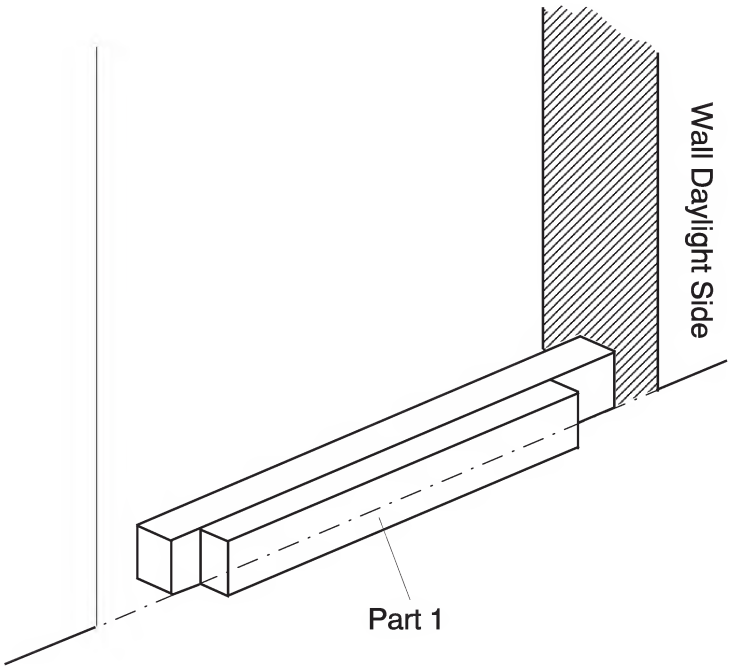



figure 13-1

2. Temporarily attach the part 2 and 3 (side parts) on the left and right hand side of Part 1.

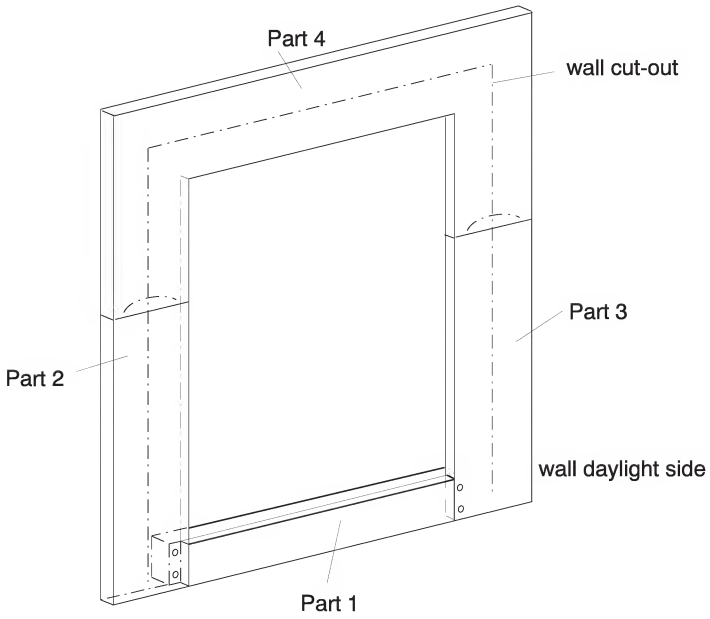


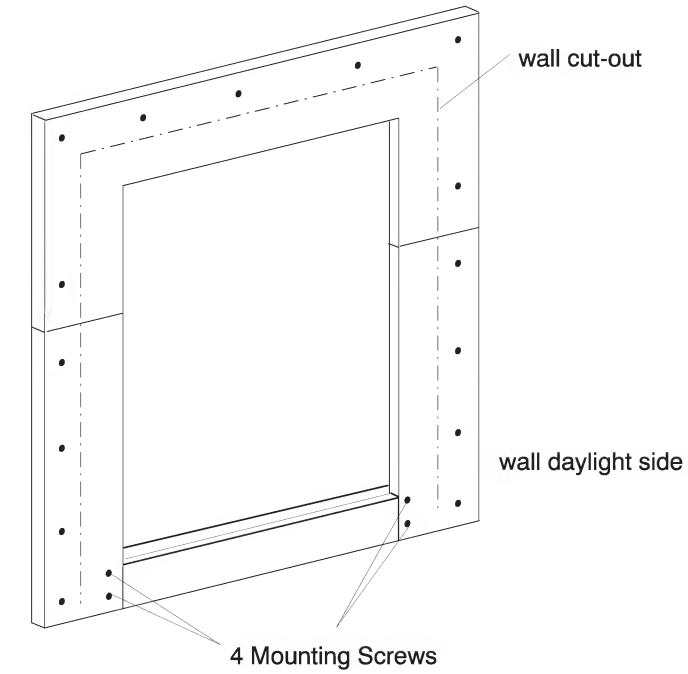

figure 13-2

**3**. Temporarily attach Part 4 (top part) on top Part 2 and 3.

**4**. Drill the holes indicated in figure 3 into the WOODEN FRAME boards. Push the drill until a mark is visible on the wall.

**Note**

Do not move the WOODEN FRAME while drilling the holes.




drill the holes to individual positions, depending on the wall cut-out.

figure 13-3

**5**. Take away the temporarily attached WOODEN FRAME from the wall.

**6**. Use an equivalent drill bit (for stone, wood or metal) to drill the holes into the wall. If necessary use dowels.

**7**. Use the 4 MOUNTING SCREWS to attach part 1, 2 and 3 indicated in figure 13-3.

**8**. Use appropriate screws to install the WOODEN FRAME to the wall.

## PREPARATION OF THE XML300

1. Disconnect the XML 300 / XML 300 Plus from the mains.

2. Remove the TOP COVER, REAR PANEL and the PANEL on the right hand side from the XML 300 / XML 300 Plus.

**Note**

Take care that you do not loose the SCREWS and SCREW RETAINING RINGS.

## INSTALLATION OF THE SUPPORT BLOCK

**Note**

This procedure is valid for XML 300 with serial numbers below 2001 only

A support block must be installed to the SIDE PLATE of the CONVEYER to prevent the FILM PICKUP END SWITCH REAR ( B18/C_UP_RE) from being misaligned by the REAR COVER.

1. Clean the top surface of the CONVEYER SIDE PLATE as shown in the figure on the next page.

2. Use two-compound cement to fix the SUPPORT BLOCK(see the figure on the next page). Wait until the cement has hardened (refer to the “How To Use”-Instructions of the cement).

3. Remove and discard the SCREW of the FILM PICKUP END SWITCH REAR B18 and the WIRE TIE. See the figure on the next page.

4. Install the new SCREW for the FILM PICKUP END SWITCH REAR B18 with the flat head to the top and the NUT facing to the bottom.

5. Install the WIRE TIE so that the locking faces to the bottom.

6. Check the alignment of the FILM PICKUP END SWITCH REAR B18. See the drawing on the next page.

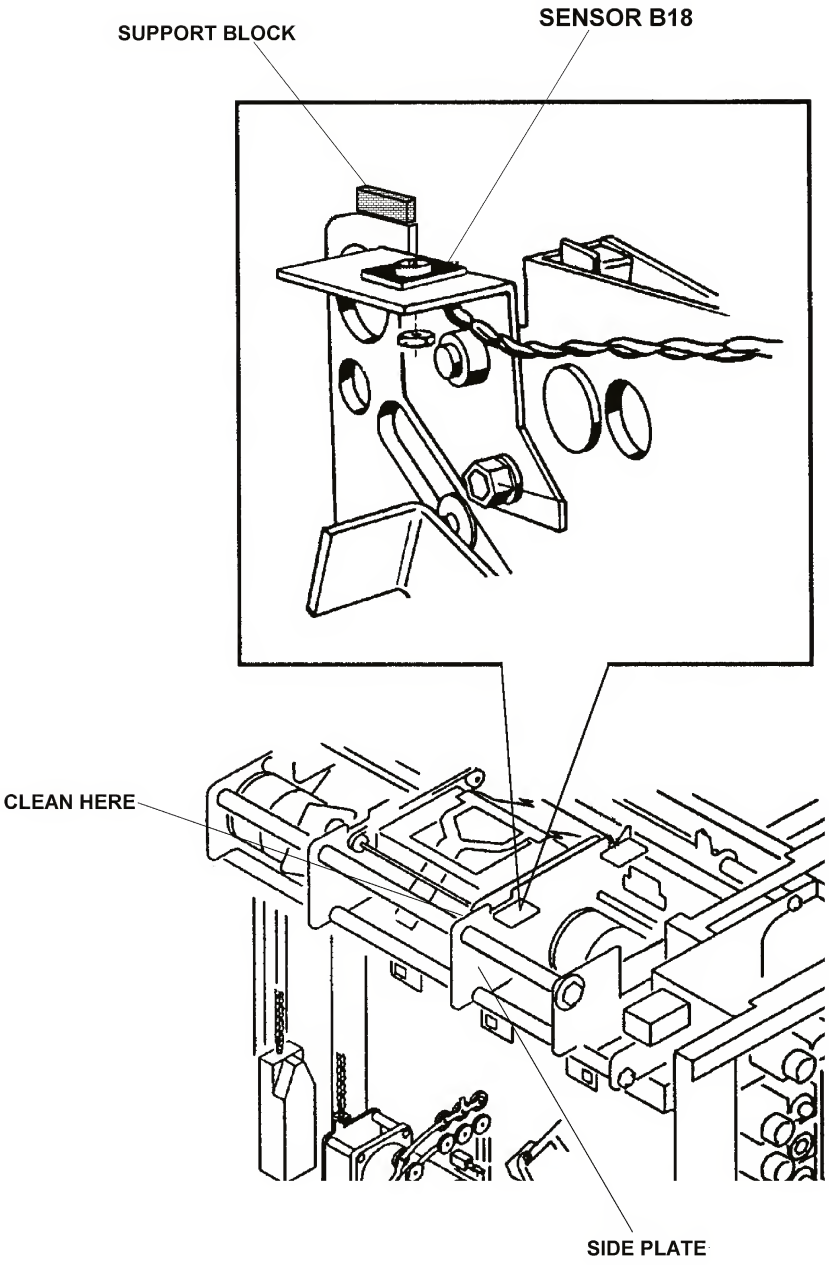



figure 13-4

## INSTALLATION OF THE INTERFACE BOARD

**ESD**

Take proper ESD safety precautions

1. Cover the opening to the POWER SUPPLY with a sheet of paper so that nothing falls into it.

2. Disconnect the SLAVE PROCESSOR PCB A3/2 from the socket on the MAGAZINE INTERFACE PCB A4.

3. Rotate out PCB A4 by about 90° and install the two black PCB spacers to the PCB A4.

4. Rotate the PCB-A4 back into position.

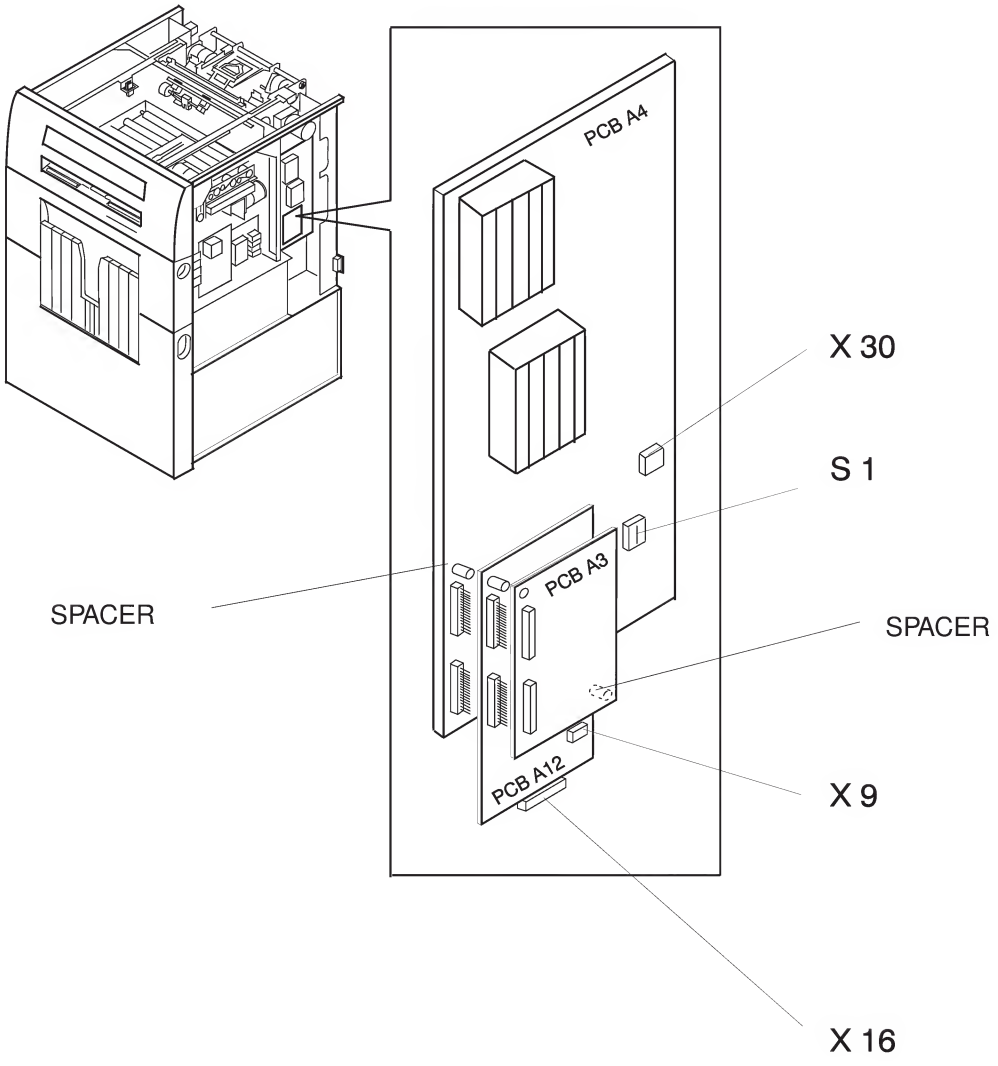



figure 13-5

5. Prepare the PCB A12 with the remaining black PCB-SPACERS on the top left and the bottom right in the right hand side hole.

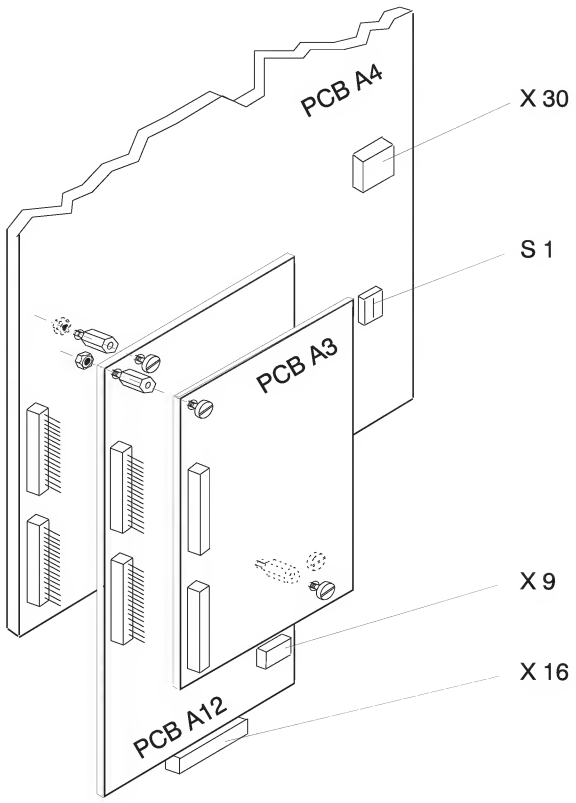



figure 13-6

6. Install the INTERFACE CONTROL PCB A12 to the old position of the SLAVE PROCESSOR PCB A3/2 and Fasten it with the two white plastic SCREWS.

**Note**

Check that none of the PINS on the PCB A4 are damaged when installing the PCB-A12.

7. Install the SLAVE PROCESSOR PCB A3/2 on top of the INTERFACE CONTROLLER PCB A12.

8. Fasten the SLAVE PROCESSOR PCB A3/2 with one or two white plastic SCREWS.

**Note**

Some PCBs have just one hole.

9. Disconnect the POWER CABLE from the CONNECTOR A4 X30 on the PCB A4. See the figure on the previous page.

**10**. Connect the new DISTRIBUTION CABLE to the POWER CABLE A4 X30 CONNECTOR.

**11**. Connect the new DISTRIBUTION CABLE to the A4 X30 socket on the PCB A4 and the CONNECTOR A12 X9 on the PCB A12.

**12**. Fasten the new DISTRIBUTION CABLE to the existing HARNESS with WIRE TIES.

**13**. Set the left-hand SWITCH of the DIP-SWITCH S1(PCB A4) to ON.

## INSTALLATION OF THE DFF INTERFACE

**1**. Disconnect the CABLE for the MOTOR M13 (STEPPER MOTOR PROCESSOR INTERFACE) from the CONNECTOR A4 X16 on the PCB A4.

**2**. Remove the two SCREWS to remove the old PROCESSOR INTERFACE on the rear side of the XML 300.

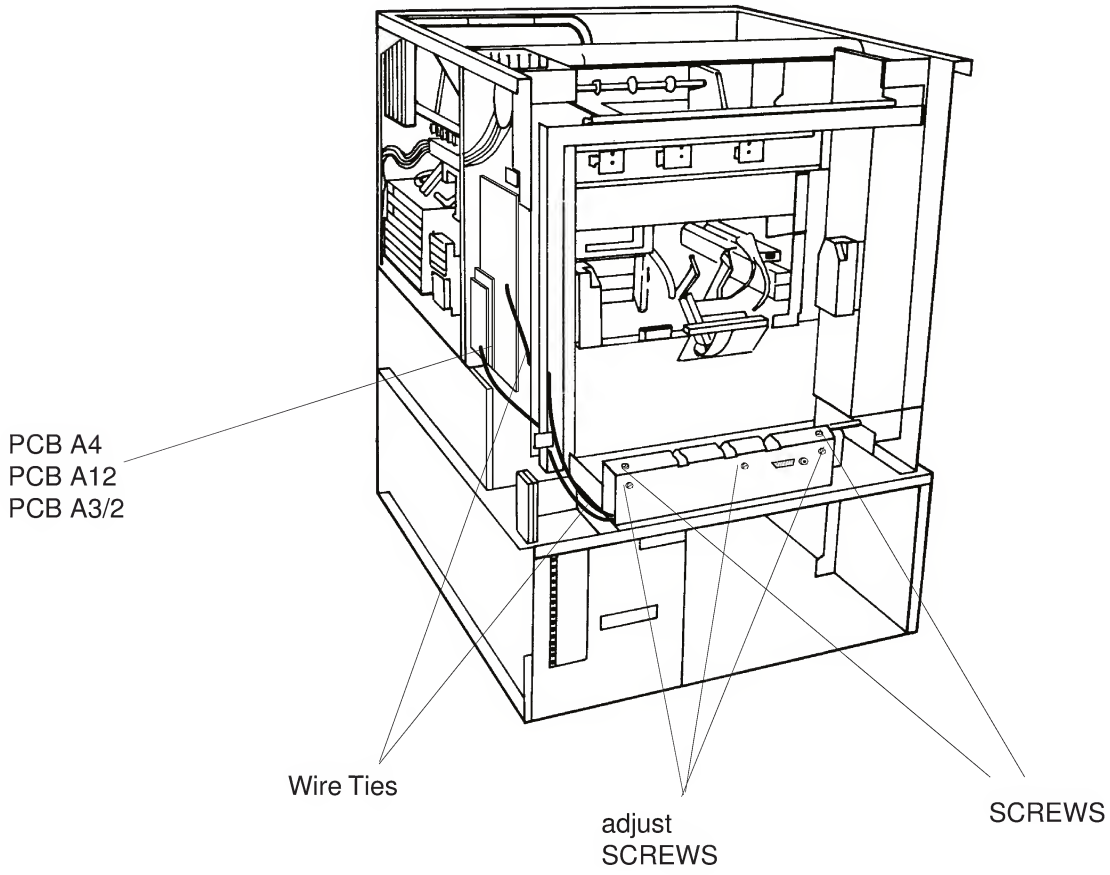



figure 13-7

**For XML 300 with serial numbers < 2001 :**

**3**. Install the INTERFACE CABLE/CONNECTOR to the **new** PROCESSOR INTERFACE and fasten it with two WIRE TIES together with the MOTOR CABLE.

**For XML 300 with serial number > 2000**
**and for XML 300 Plus**:

**4**. Install the INTERFACE CABLE/CONNECTOR to the **existing** PROCESSOR INTERFACE and fasten it with a WIRE TIE together with the MOTOR CABLE.

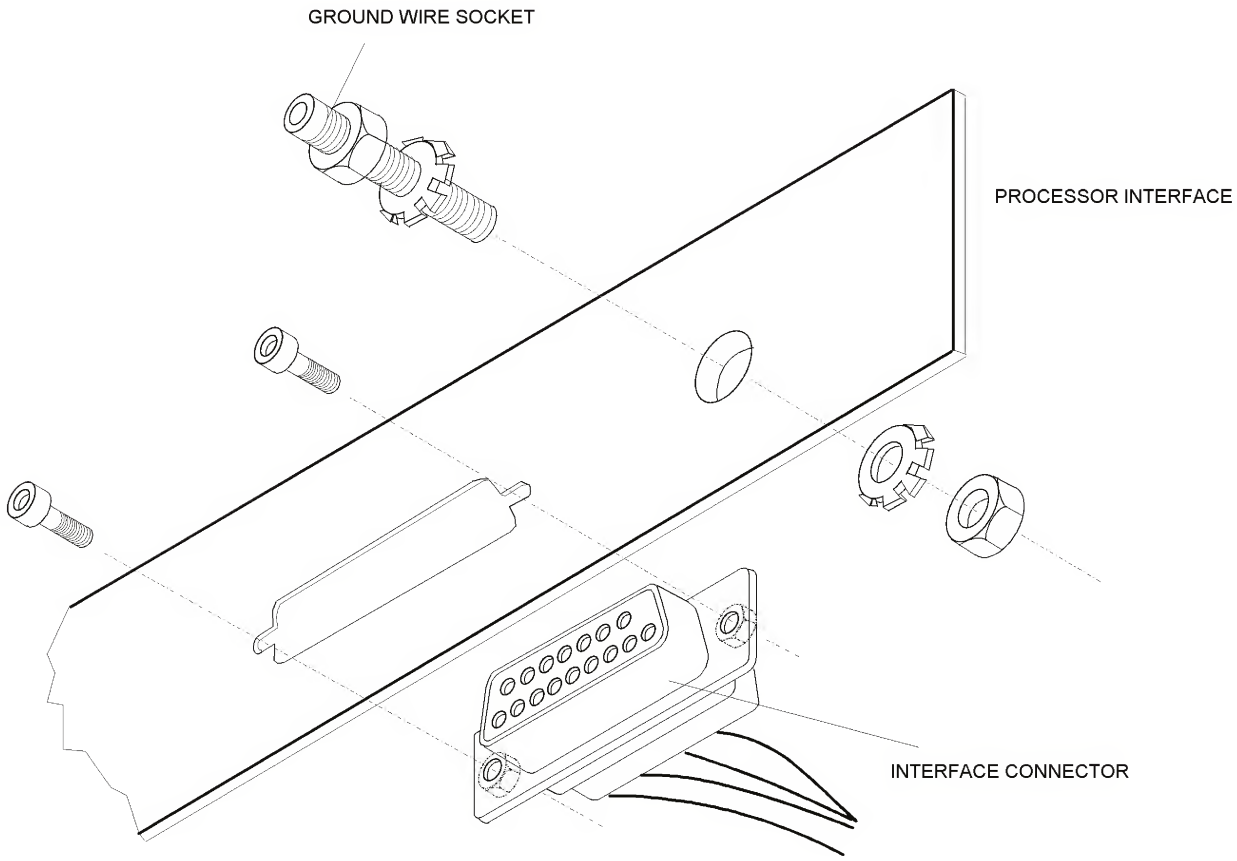



figure 13-8

**5**. Install the socket for the GROUNDING WIRE to the PROCESSOR INTERFACE.

**6**. If necessary, enlarge the slot at the plastic COVER to route the CABLES through.

7. Install the PROCESSOR INTERFACE to the XML300 / XML300 PLUS and route the INTERFACE CABLE and the cable for the MOTOR M13 (STEPPER MOTOR PROCESSOR INTERFACE) to the position of the PCB A12/PCB A4.

8. Fix the INTERFACE CABLE and the MOTOR POWER CABLE with WIRE TIES.

**Caution**

THE CABLE MUST NOT TOUCH THE DRIVE GEAR AND THE DRIVE BELT OF THE PROCESSOR INTERFACE!

9. Loosen the 3 SCREWS of the PROCESSOR INTERFACE BRACKET (slotted holes) to adjust the height (it must touch the bottom).

10. Fix the PROCESSOR INTERFACE with the 2 SCREWS.

11. Tighten the 3 SCREWS of the PROCESSOR INTERFACE (slotted holes).

12. Connect the INTERFACE CABLE to the connector A12 X 16 on the PCB A12.

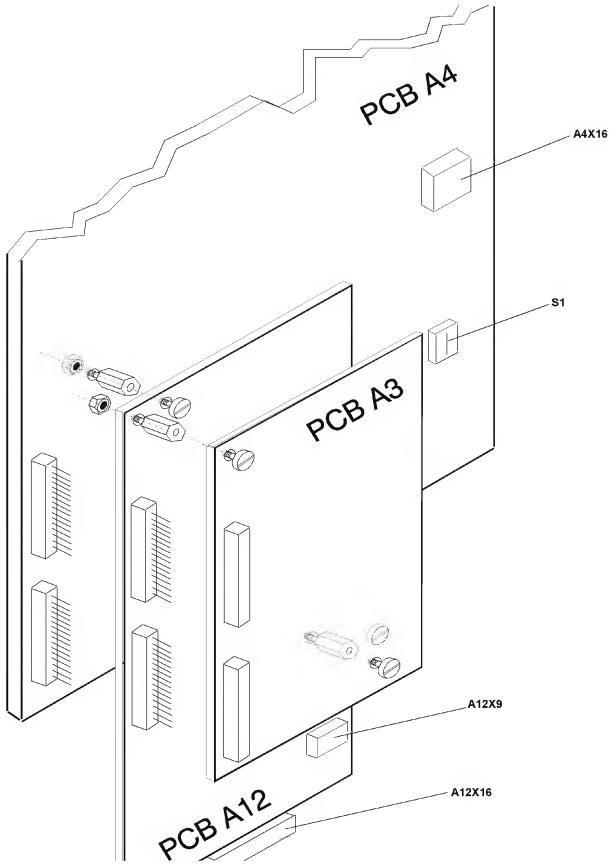



figure 13-9

**13**. Connect the cable for the MOTOR M13 (STEPPER MOTOR PROCESSOR INTERFACE) to the CONNECTOR A4 X16 on the PCB A4.

**14**. Install the right-hand SIDE COVER to the XML300 / XML300 PLUS.

**15**. Check that the INTERFACE RIBBON CABLE from the DISTRIBUTION BOARD PCB A13 in the INTERFACE DOOR is inside so that it can not be damaged before installing the REAR PANEL.

**16**. Install the rear panel from the dark-room side and fix it with the 6 SCREWS.

**Note**

Do not hold the REAR PANEL by the BLACK CURTAIN.

**17**. The XML 300 must be centred to the WOODEN FRAME and the distance from the right and left-hand side to the FRAME must be the same.

**Note**

Ensure that the XML300 / XML300 PLUS rests on all 4 LEVELLING FEET.

**18**. Move the XML300 / XML300 PLUS into the final position and level it.

**19**. Feed a PIN straight through the 2 holes on the INTERFACE DOOR to open the DOOR LATCHES. Use an allen wrench.

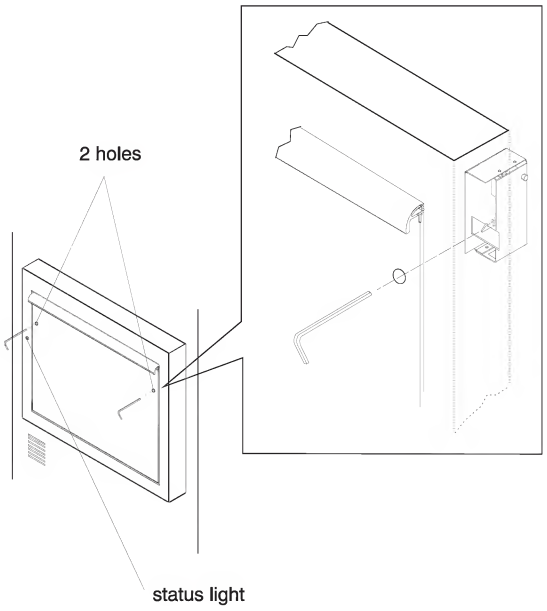



figure 13-10

**20**. Plug in the INTERFACE CABLE to the INTERFACE CONNECTOR.

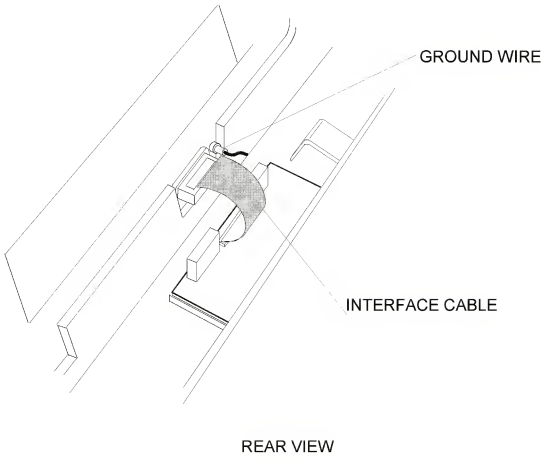



figure 13-11

**21**. Connect the GROUND WIRE from the INTERFACE DOOR to the socket at the right hand side of the INTERFACE CONNECTOR.

**22**. Install the FILM CHUTE.

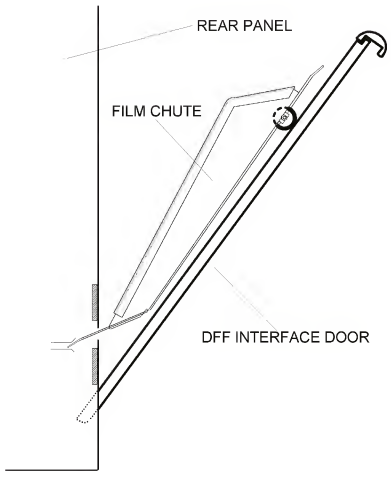



figure 13-12

**23**. Make sure that the bottom edge reaches the correct position in the PROCESSOR INTERFACE and the ROLLERS touch the door.

**24**. Close the INTERFACE DOOR.

**25**. Press the black curtain to the VELCRO strip on the WOODEN FRAME on the Dark Room Side.

**26**. Check that the BLACK CURTAIN is light tight.

**Note**

If there are small needle holes in the black curtain it is possible to squeeze them with the fingernails or move the texture with a pin in order to get it light tight. They can also be closed with black silicone.

## INSTALLATION OF THE TUBING AND ELECTRICAL CONNECTIONS

Refer to PART 2 of this INSTALLATION INSTRUCTION to install/reinstall the plumbing and electrical connections.

## INSTALLATION OF THE OPERATING SOFTWARE

TO SUCCESSFULLY INSTALL THE DARK-ROOM FILM FEEDER, THE XML 300 MUST HAVE OPERATING SOFTWARE 3.24 OR HIGHER AND MOD 30 MUST BE INSTALLED.

**Note**

If the software is not successfully downloaded try it again. If the problem continues, locate it by replacing the MICRO PROCESSOR BOARDS. If during the software update an error code ex0 to ex42 is displayed, see the chapter ADDITIONAL MESSAGES in the DIAGNOSTICS MANUAL DG 3058.

**1**. To download the OPERATING SOFTWARE to the HARD DISK of the LAP TOP, switch on the LAP TOP

**2**. Change to drive A:

*Key in: A:.....press ENTER*

**3**. Download the software:

*Key in: install.....press ENTER*

**4**. Change back to drive C:

*Key in: C:.....press ENTER*

**5**. Connect the LAP TOP to the rear connector of the XML300 / XML 300 Plus.

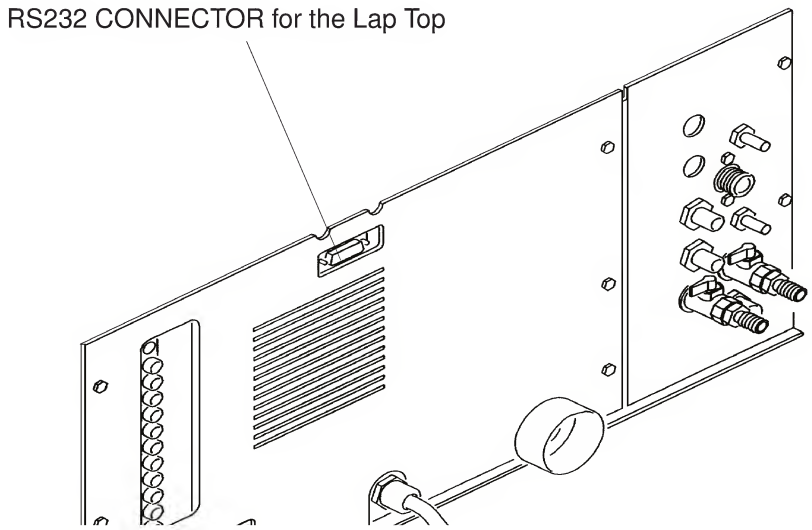



figure 13-13

**6**. Energise the XML300 / XML 300 Plus. Take out the MAGAZINES and take off the PANELS.

**7**. Start the SERVICE SOFTWARE and record the parameter settings for safety reasons.

*Key in: CD\XML300.....press ENTER*
*Key in START.....press ENTER*
*Select SERVICE MODE from the GLOBAL MENU.....press ENTER*
*ENTER SERVICE MODE MESSAGE is displayed.....press ENTER*
*UNIT DATA ARE displayed.....press ENTER*
*Select CHANGE ML300 DATA from the MAIN MENU.....press ENTER*
*Select CHANGE PARAMETER.....press ENTER*
*Record the values of all PARAMETERS*
*Press BACKSPACE twice to go back to the MAIN MENU*

8. Download the OPERATING SOFTWARE from DRIVE C: to the ML300.

**Note**

ALWAYS SELECT YOUR OWN LANGUAGE FIRST TO OVERWRITE THE DEFAULT LANGUAGES. THE SELECTED LANGUAGES ARE MARKED WITH AN ASTERISK.

*Select INSTALLATION from the MAIN MENU .....press ENTER*
*Select SOFTWARE UPDATE from the menu INSTALLATION..press ENTER*
*Select the desired languages (up to 4).....press ENTER*
*Select SOFTWARE UPDATE.....press ENTER*
*Key in YES .....press ENTER*

The software of the SYSTEM UNIT is now updated. The amber and the red LED on the OPERATOR DISPLAY are flashing alternately. After the software of the SYSTEM UNIT is downloaded, the error code 00 00 00 00 00 is displayed and the green LED on PCB A1 is switched on.

- The software of the CASSETTE UNIT is now updated. The red LED on PCB A8 is flashing.
- The software of the MAGAZINE UNIT is now updated. The red LED on PCB A4 is flashing.
- The complete operating software is downloaded and the red LED on the OPERATOR CONTROL PANEL is switched on.

9. Switch off the XML 300. Wait 5 seconds. Switch on the XML 300 again.

10. Exit the SOFTWARE UPDATE PROGRAM.

*Press any key at the LAP TOP*
*Select RETURN from SOFTWARE UPDATE .....press ENTER*

11. Check if the PARAMETERS did not change.

*Select CHANGE ML300 DATA from the MAIN MENU.....press ENTER*
*Select CHANGE PARAMETERS.....press ENTER*

12. If one of the parameters with the suffix H has changed, alter it.

13. If one of the parameters with the suffix D has changed, start the corresponding function. If not proceed with step 14.

| **PARAMETER** | CORRESPONDING FUNCTION |
|---|---|
| CASSETTE OFFSET | CASSETTE LENGTH |
| MAGAZINE LEVEL | SCAN RUN |
| MAGAZINE HOME POSITION | SCAN RUN |
| GEAR BACKLASH | SCAN RUN |
| NEARLY EMPTY | NEARLY EMPTY |

**14**. Store the PARAMETERS.

*Select STORE PARAMETERS .....press ENTER*

**15**. Check the UNIT DATA

*Press BACKSPACE*

*Select CHANGE DATA .....press ENTER*

**16**. Change and store the data if necessary.

**17**. Exit the SERVICE PROGRAM.

*Press BACKSPACE twice*

*Select QUIT ML300 SERVICE MODE.....press ENTER*

*Select Quit the program .....press ENTER*

## FINAL CHECK

**1**. Check that the DFF DRAWER is locked when the XML 300 / XML 300 PLUS is de-energised.

**2**. Switch on the XML 300 / XML 300 PLUS so that the DFF DRAWER can be opened when the DFF STATUS LIGHT is green

**3**. Feed a film into the DFF DRAWER

**4**. Wait until a beep indicates that the film is recognised by the PROCESSOR ENTRANCE ROLLER.

**5**. Feed a second film into the DFF DRAWER.

**6**. Close the DFF DRAWER.

**7**. Check that the DFF STATUS LIGHT turns red and the DFF DRAWER is locked.

**8**. The FRONT DISPLAY shows DFF in use while film is in the DFF.

**9**. Check that all films arrive in the RECEIVING BIN.

**10**. Check the UNIT DATA

*Press BACKSPACE*

*Select CHANGE DATA .....press ENTER*

**11**. Change and store the data if necessary.

**12**. Exit the Service Program.

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